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Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER LOGIN ACTIVITY
FOR A SERVER APPLICATION
Atty Docket: 1503/7

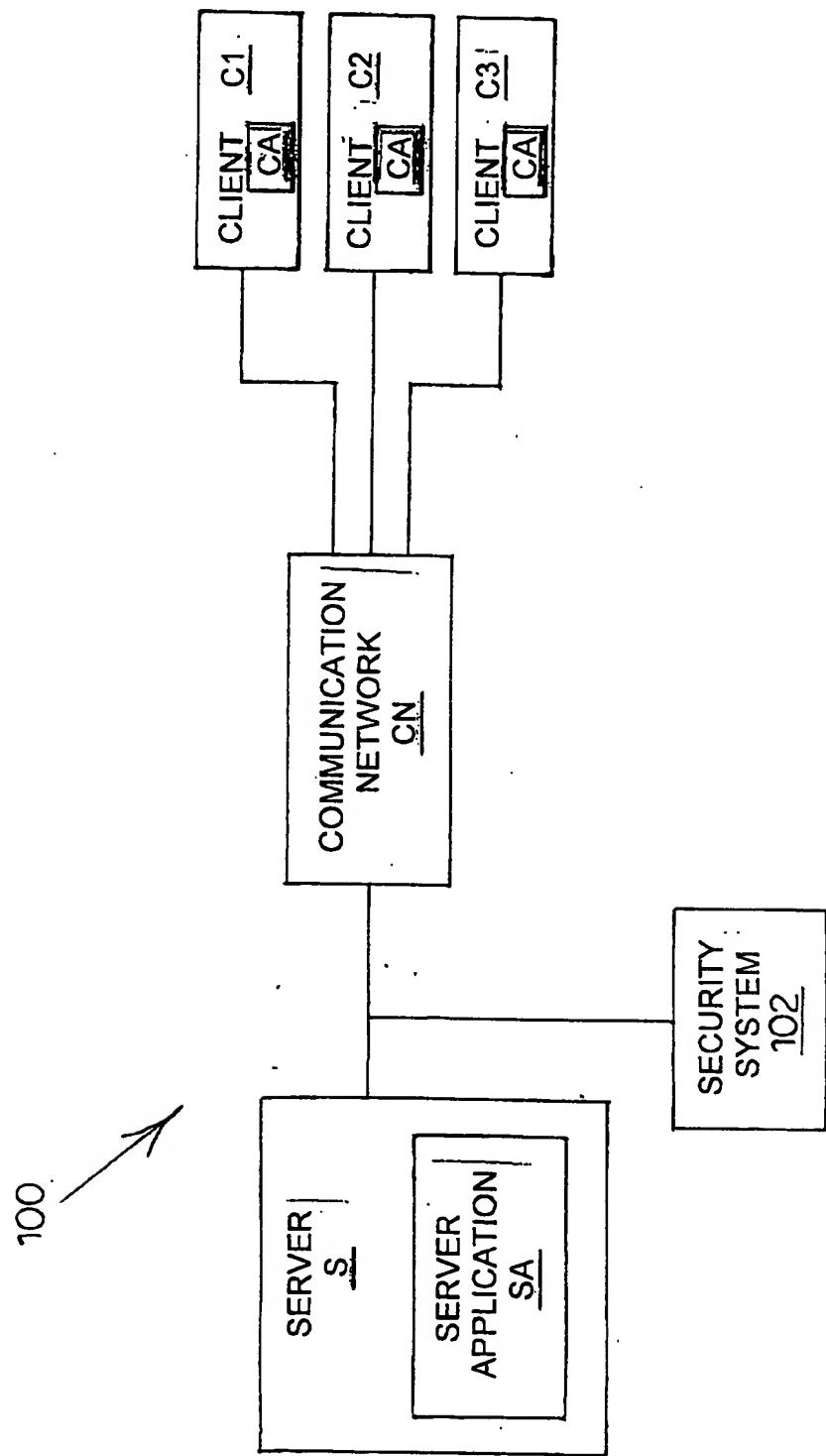


FIG 1A

Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
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FOR A SERVER APPLICATION
Atty Docket: 1503/7

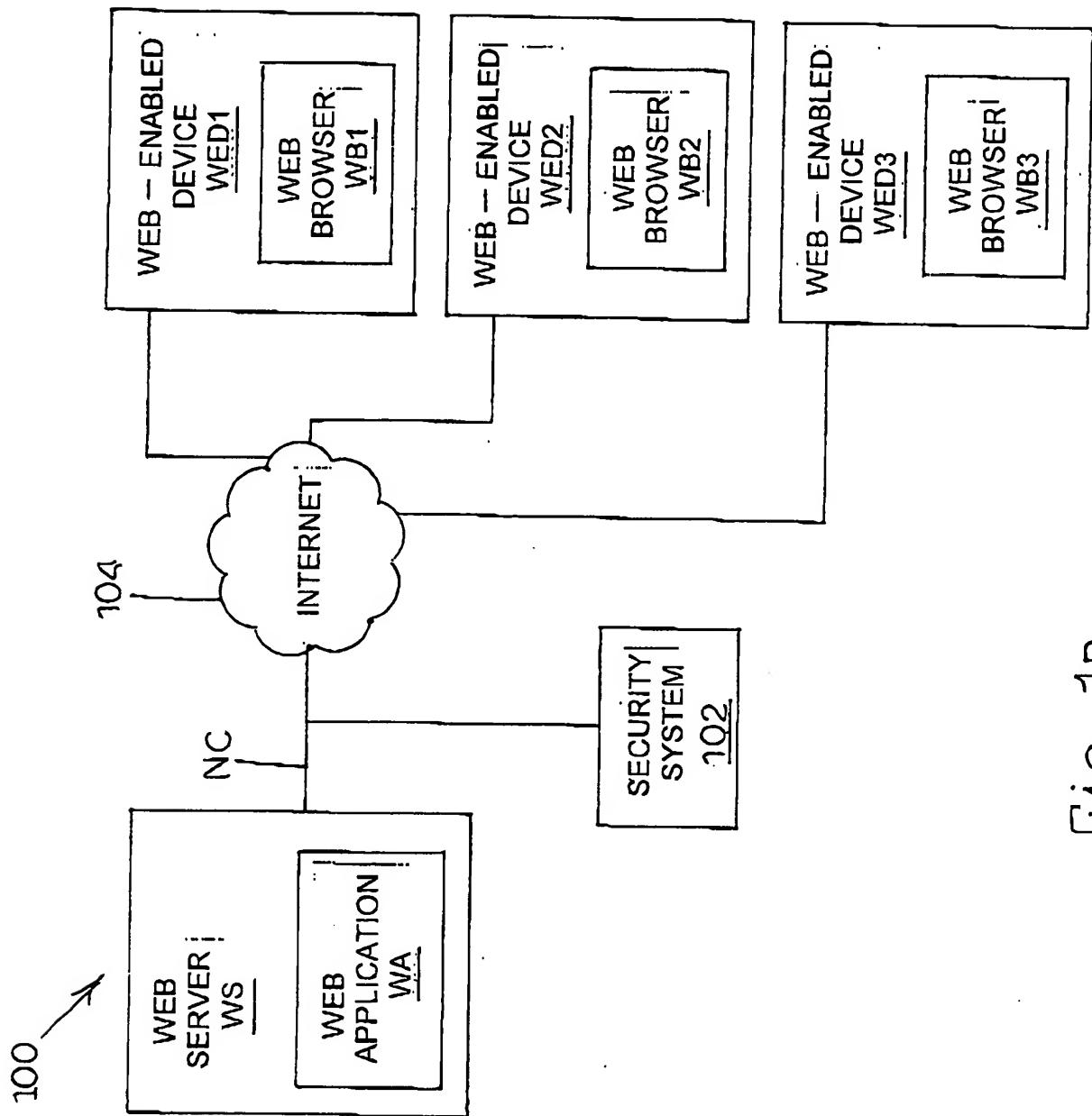


FIG. 1B

FIG. 2

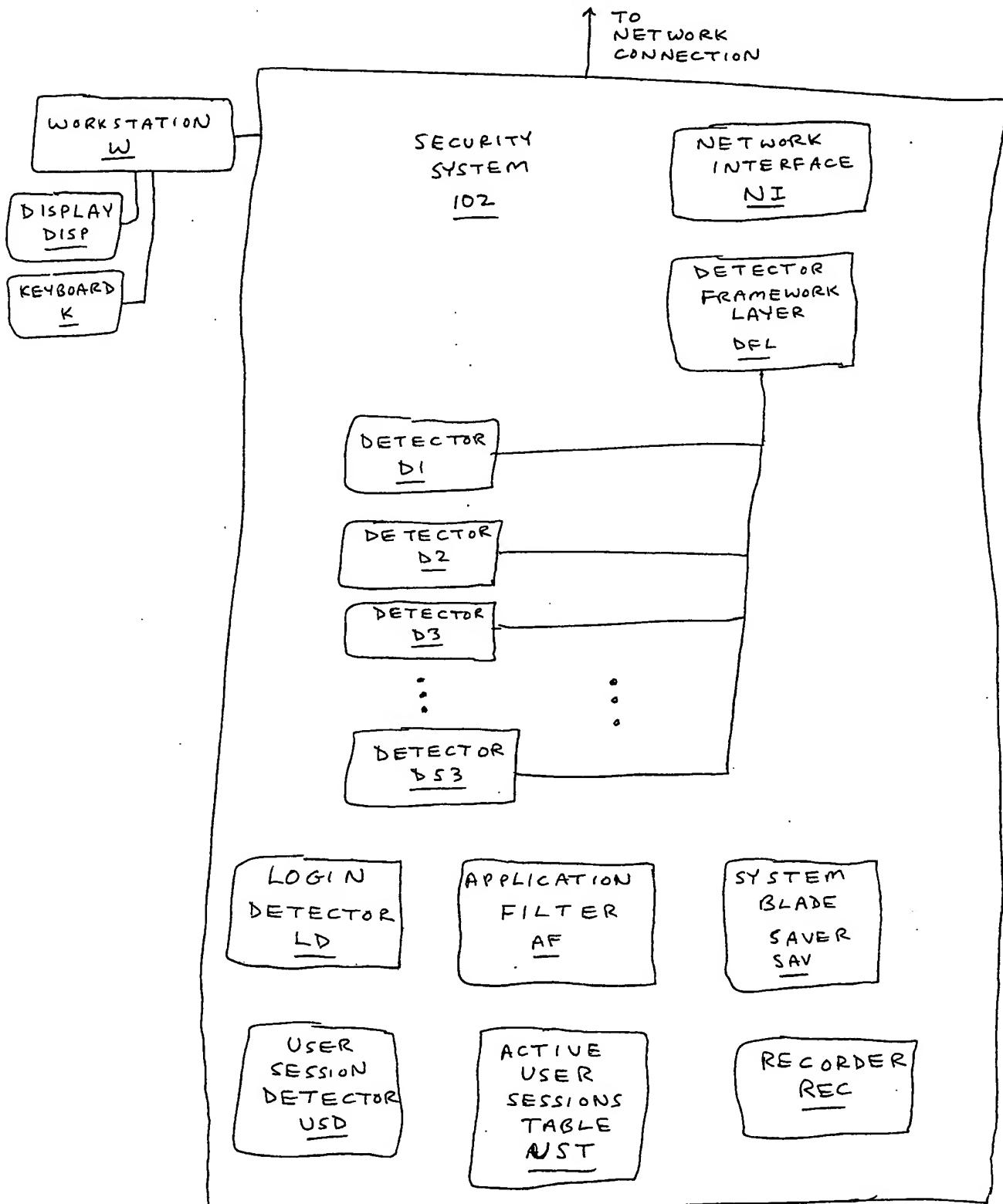
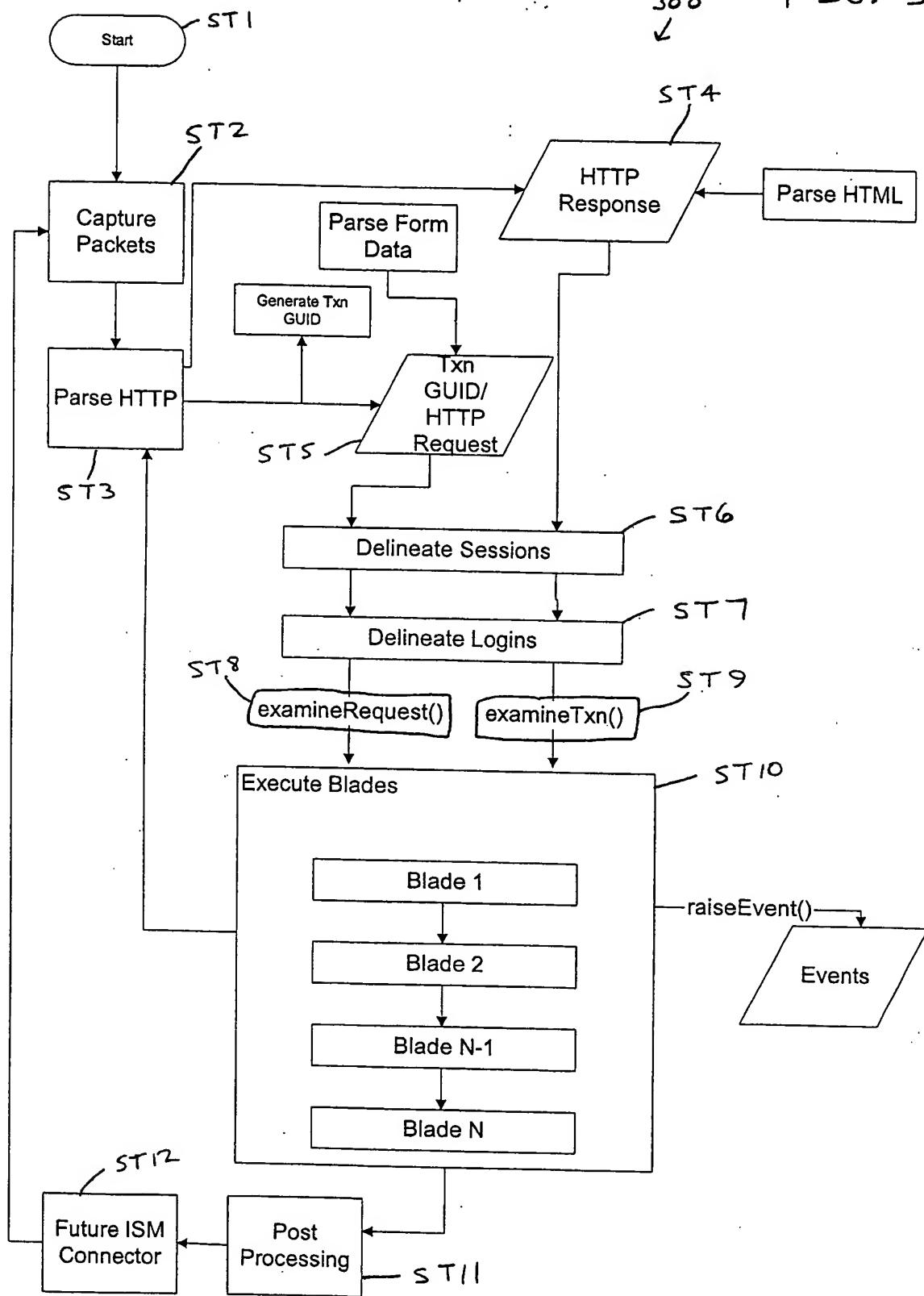


FIG. 3



Title: METHODS, SYSTEMS AND COMPUTER
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FIG. 4

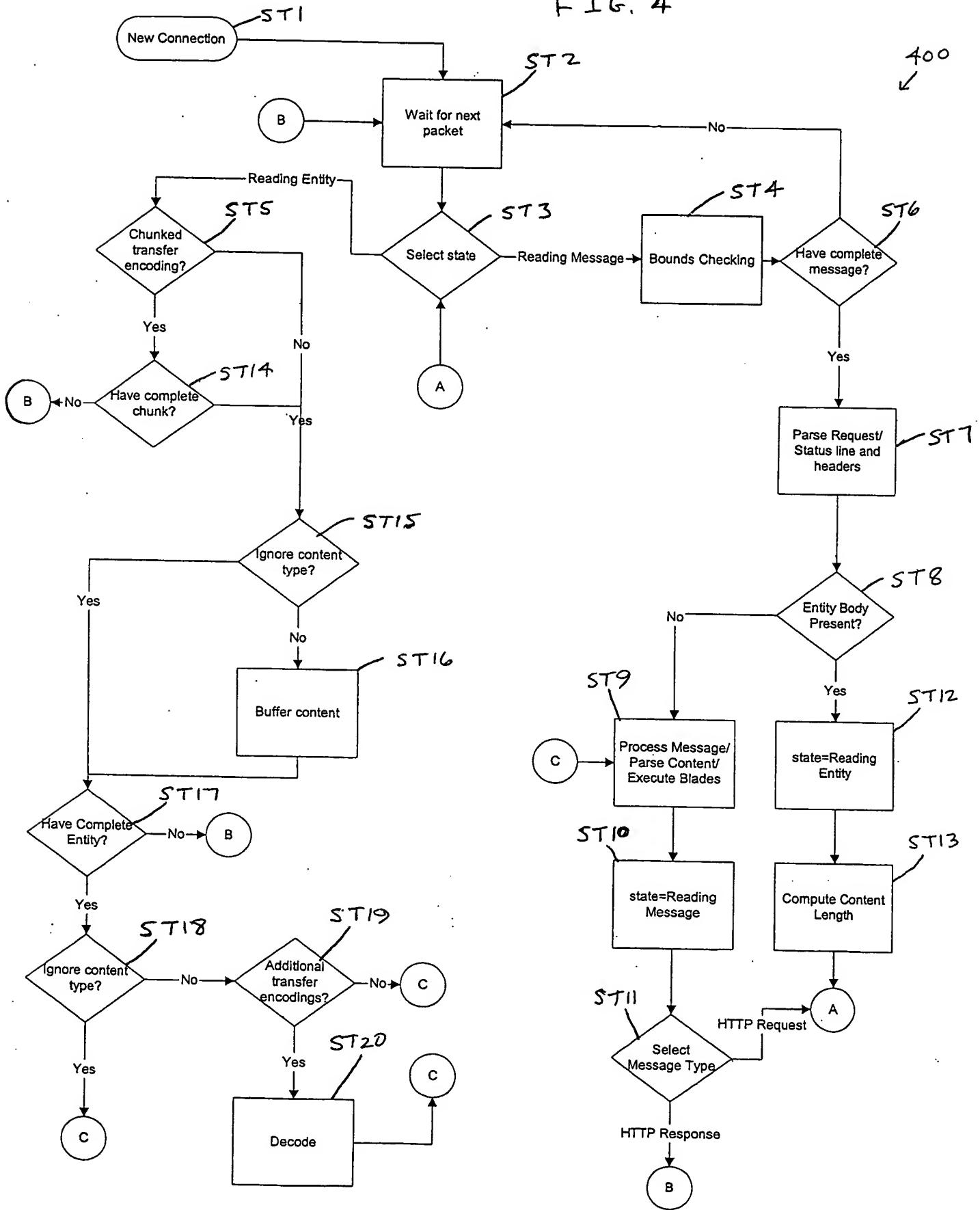
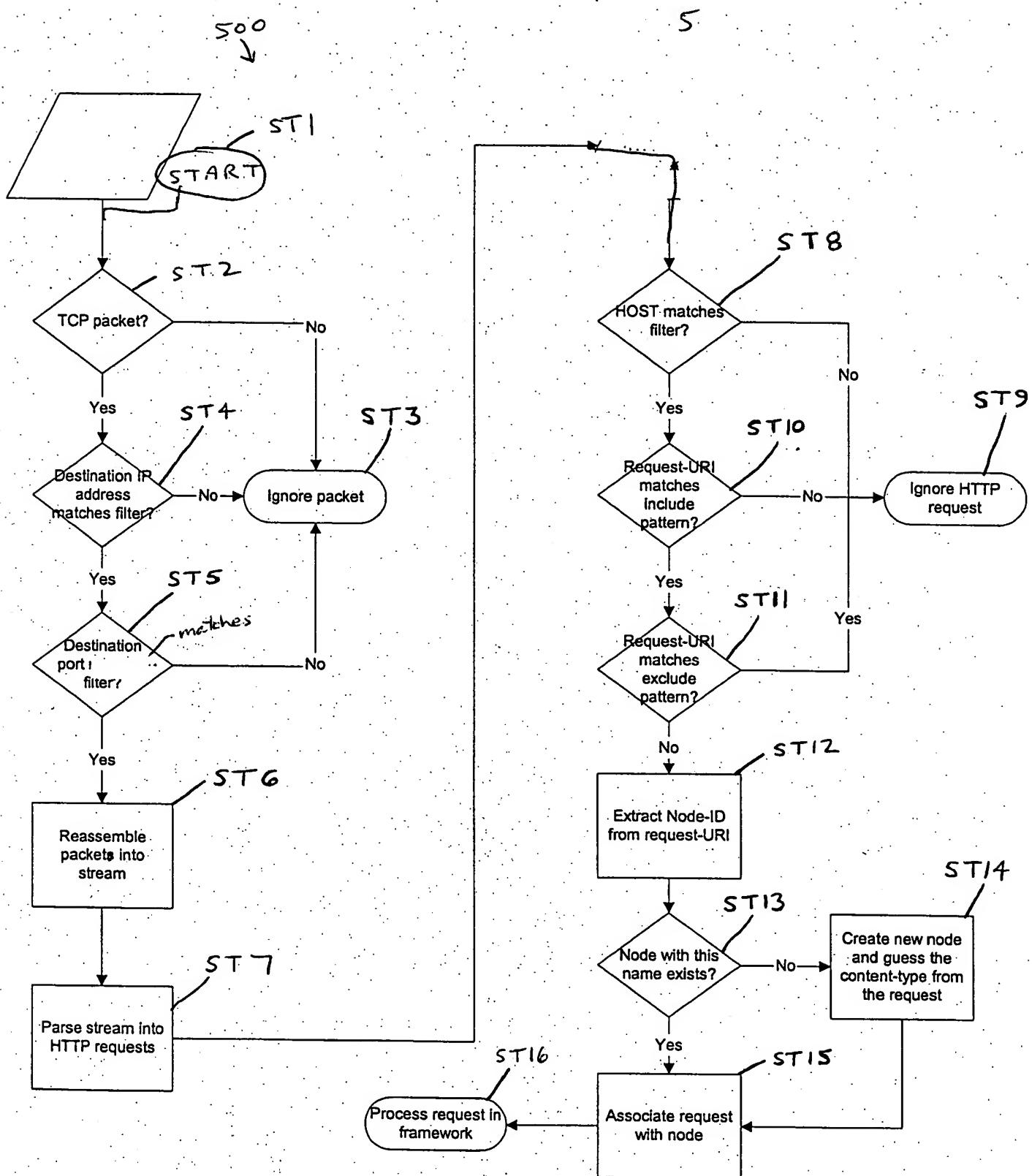


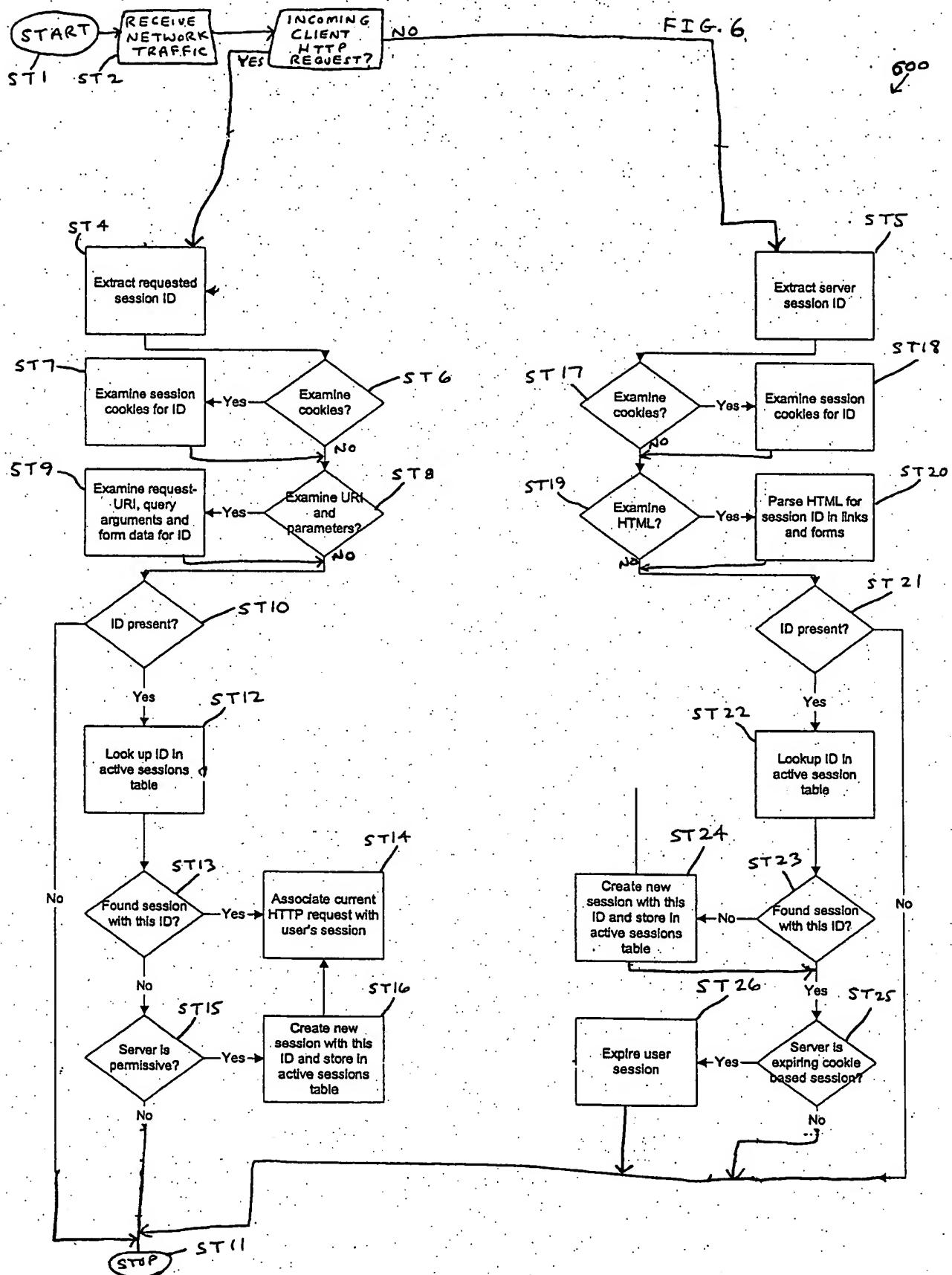
FIG.

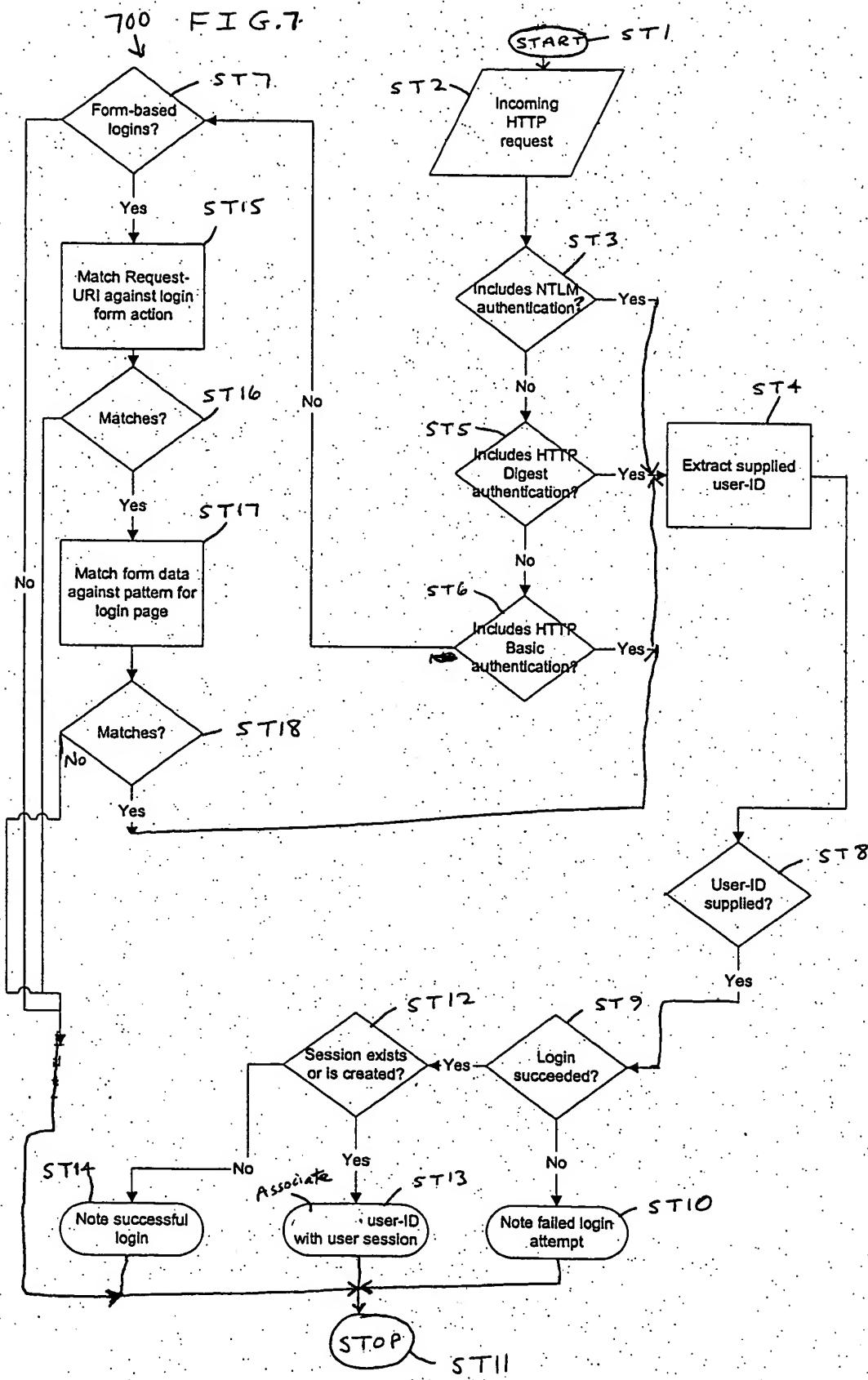
5



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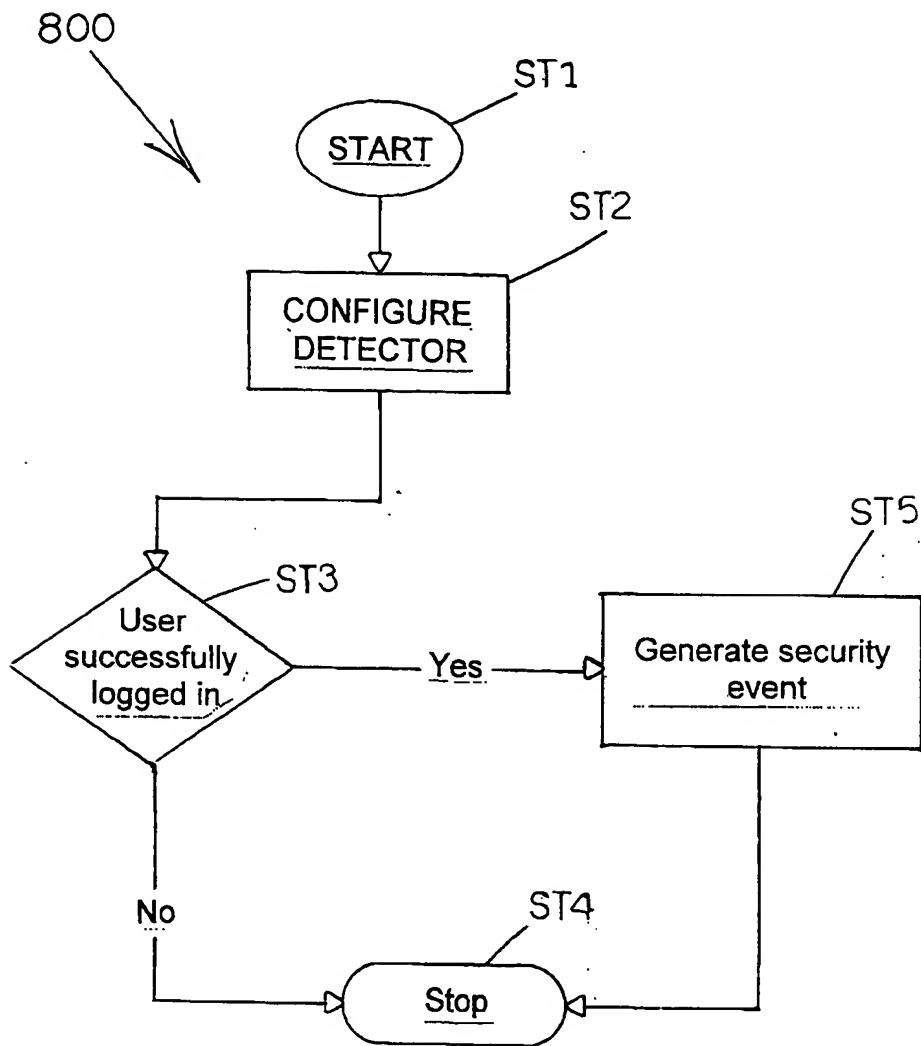


Fig. 8

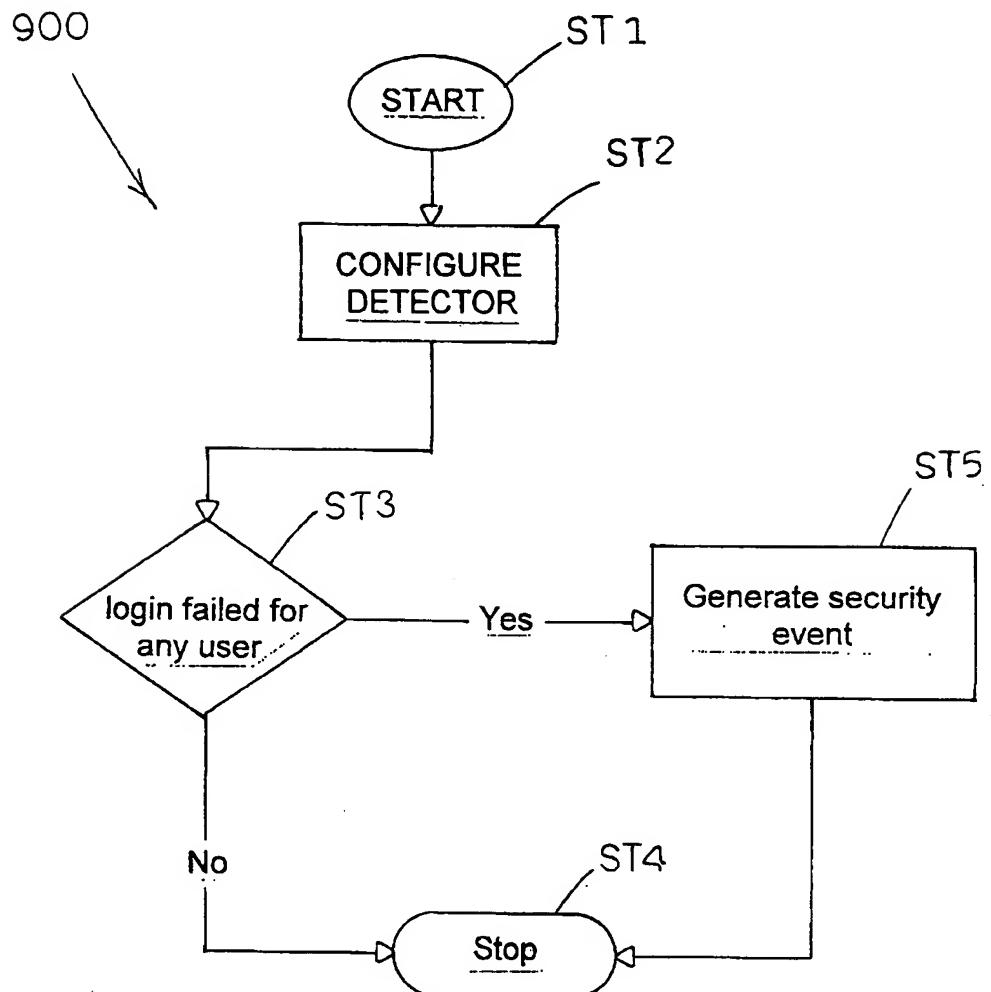


Fig. 9

Title: METHODS, SYSTEMS AND COMPUTER
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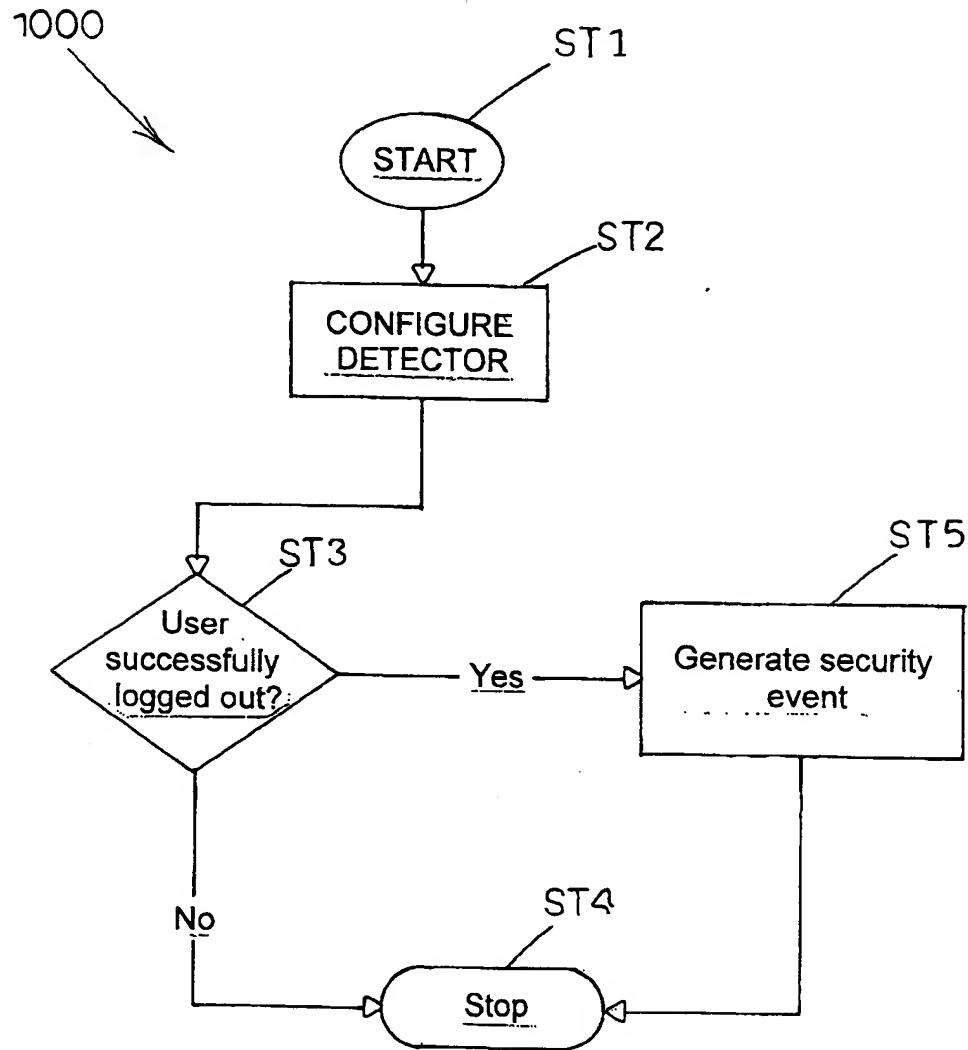


FIG. 10

Title: METHODS, SYSTEMS AND COMPUTER
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FOR A SERVER APPLICATION
Atty Docket: 1503/7

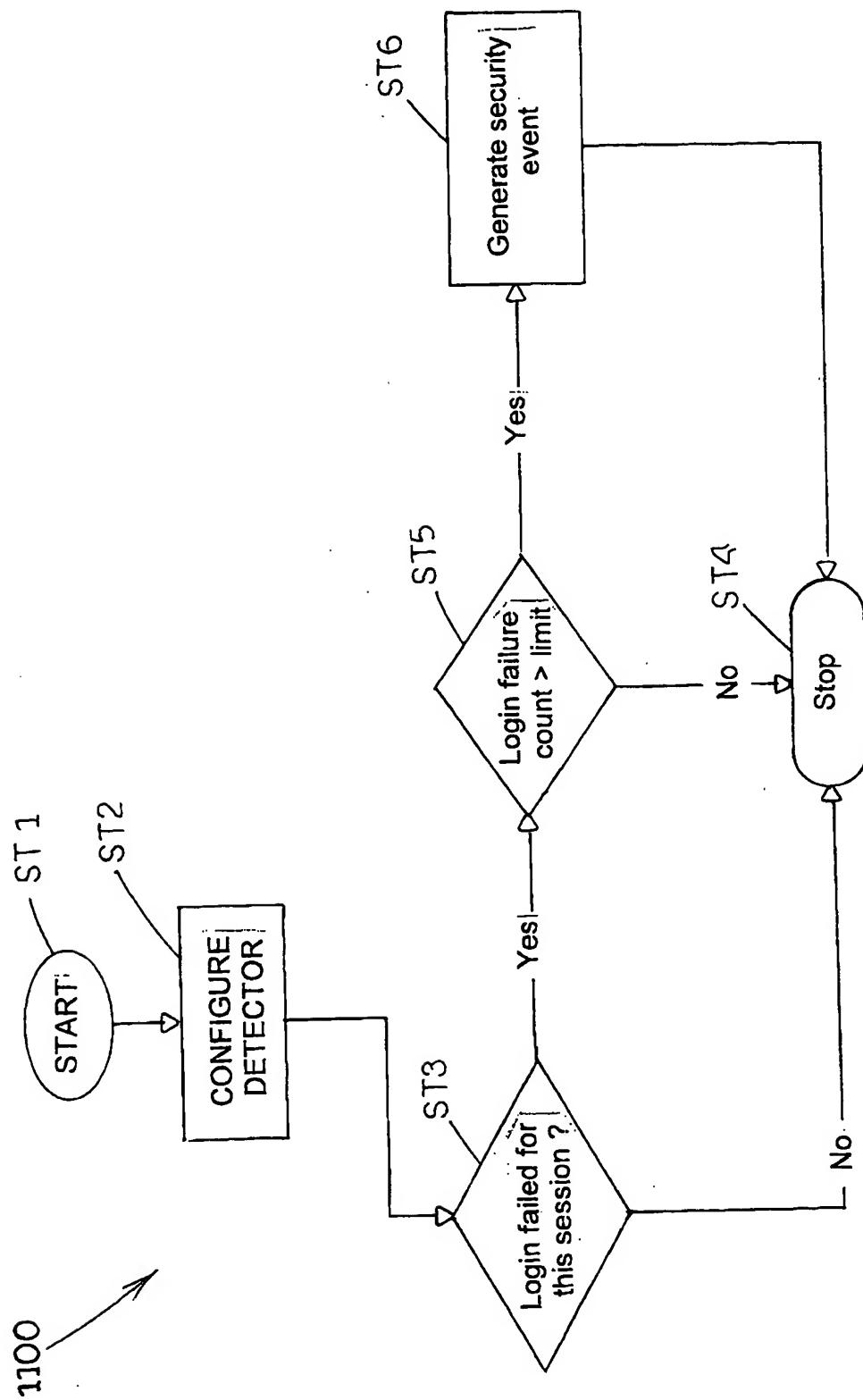


Fig. 11

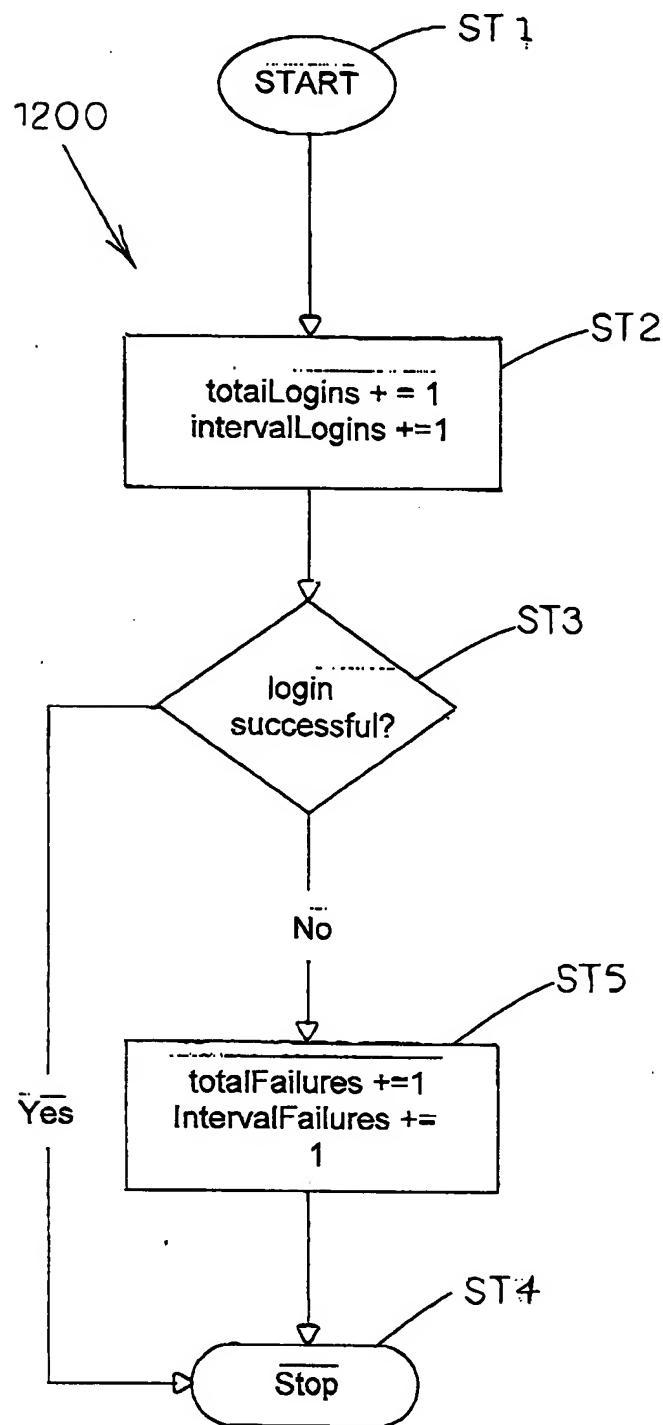


Fig. 12A

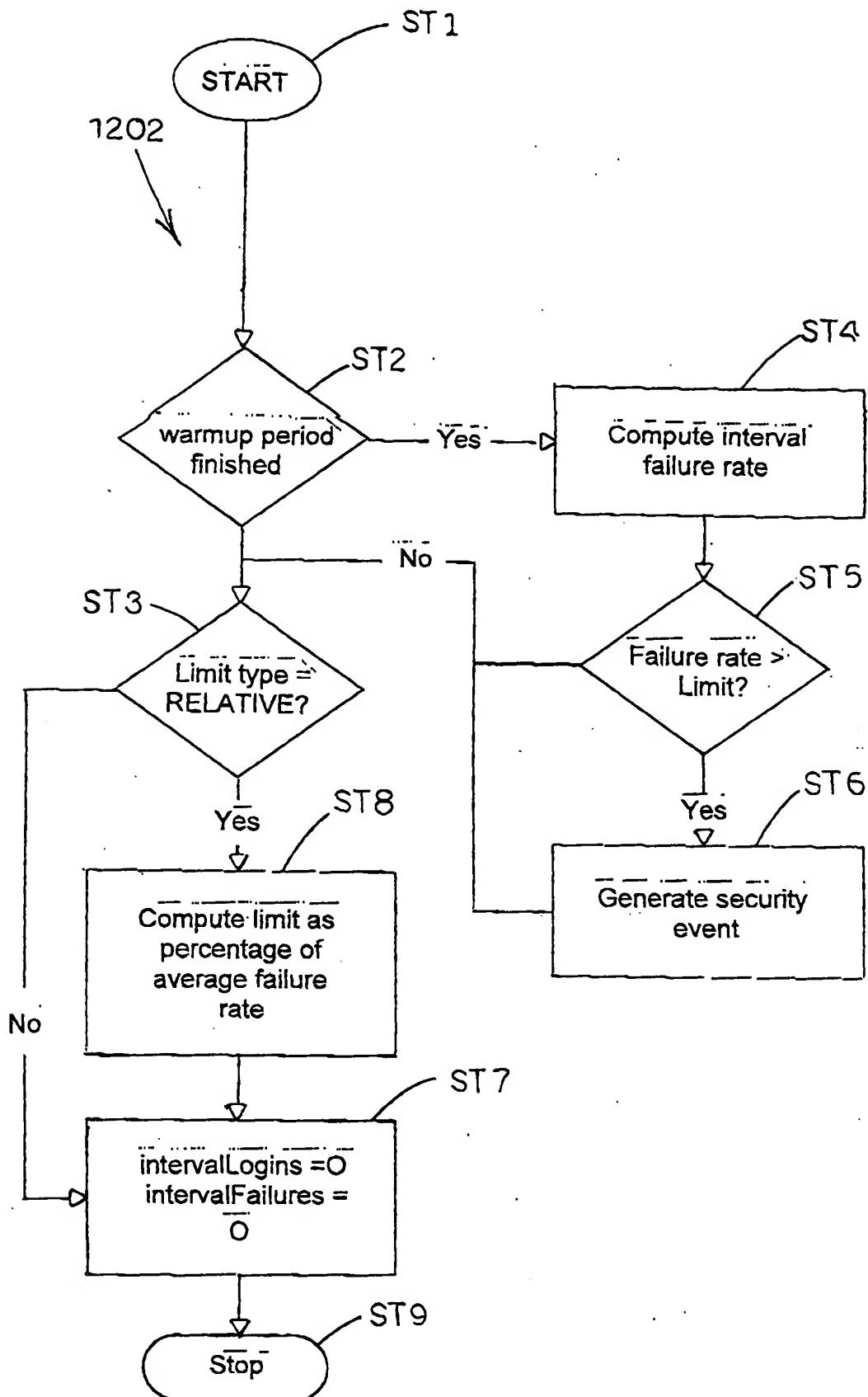


Fig. 12B

Title: METHODS, SYSTEMS AND COMPUTER
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FOR A SERVER APPLICATION
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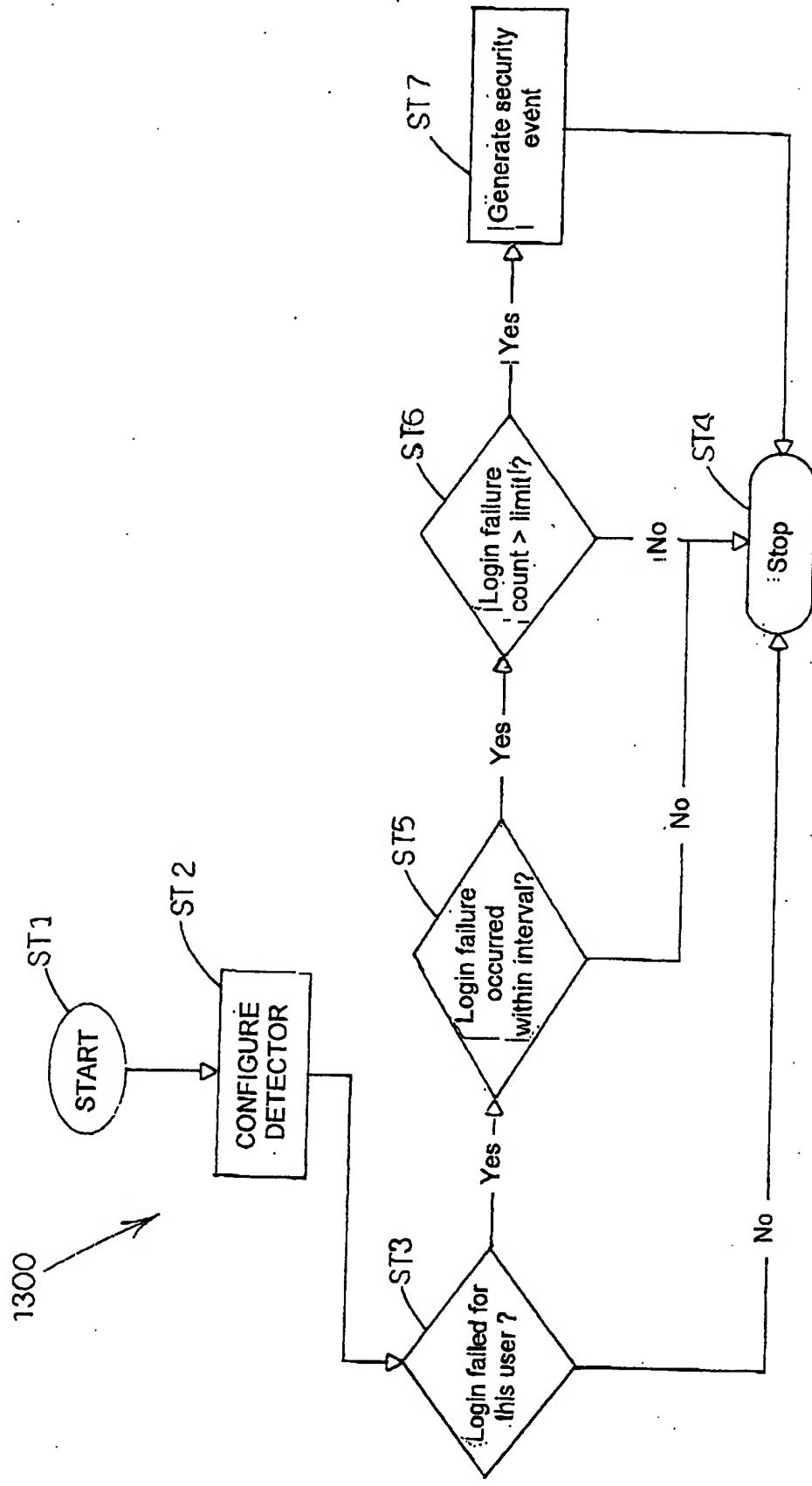


Fig . 13

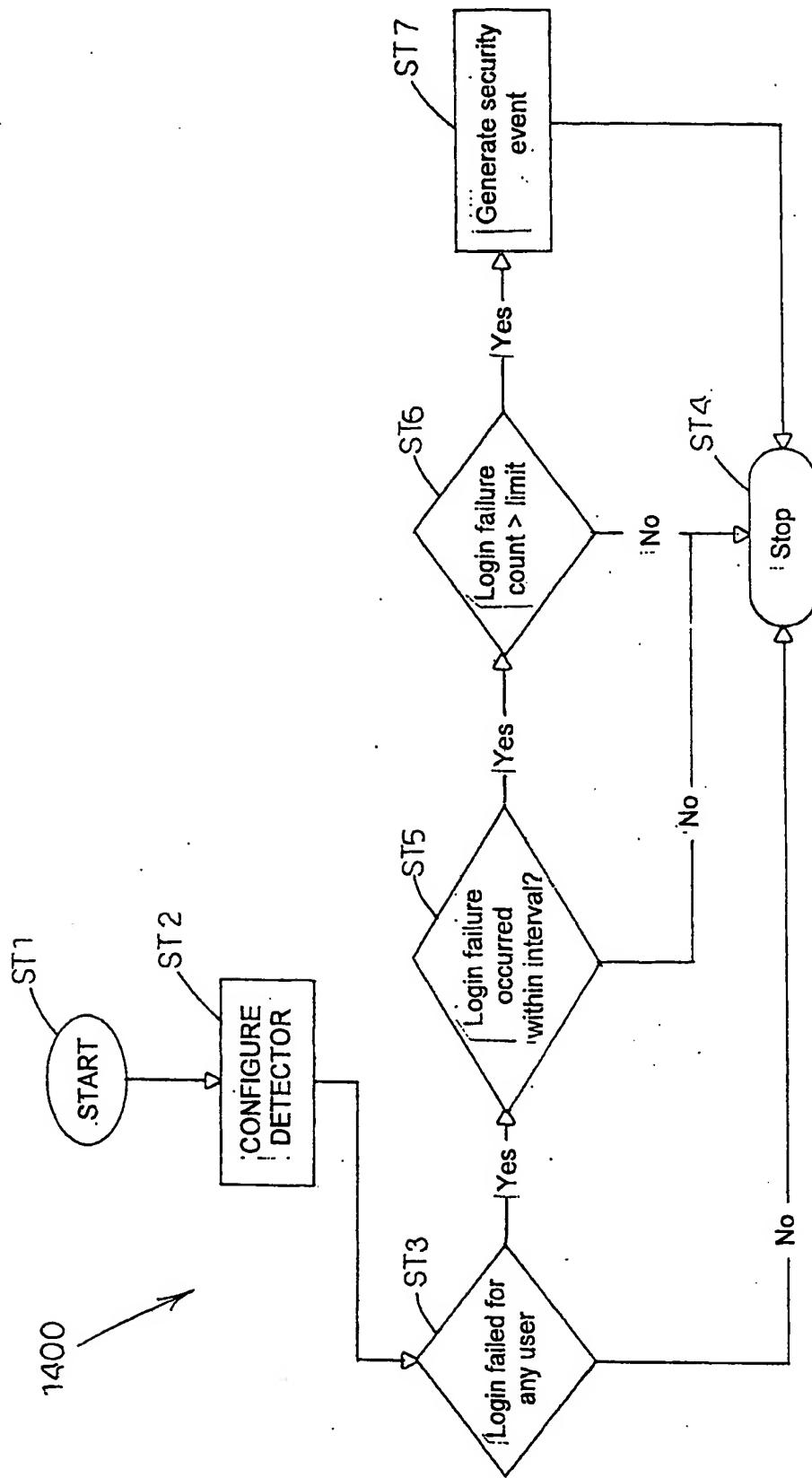


Fig . 14

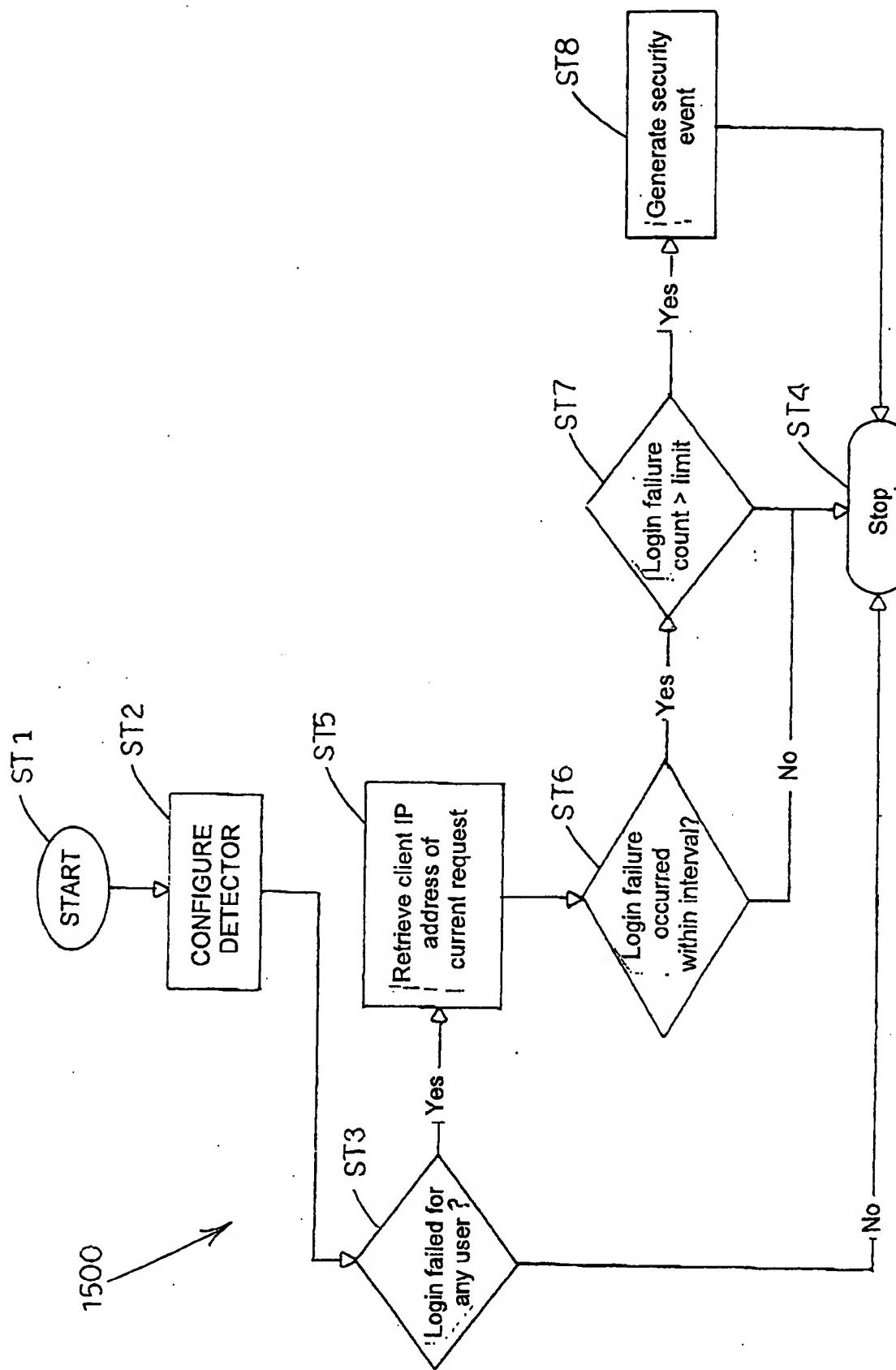


Fig . 15A

Title: METHODS, SYSTEMS AND COMPUTER
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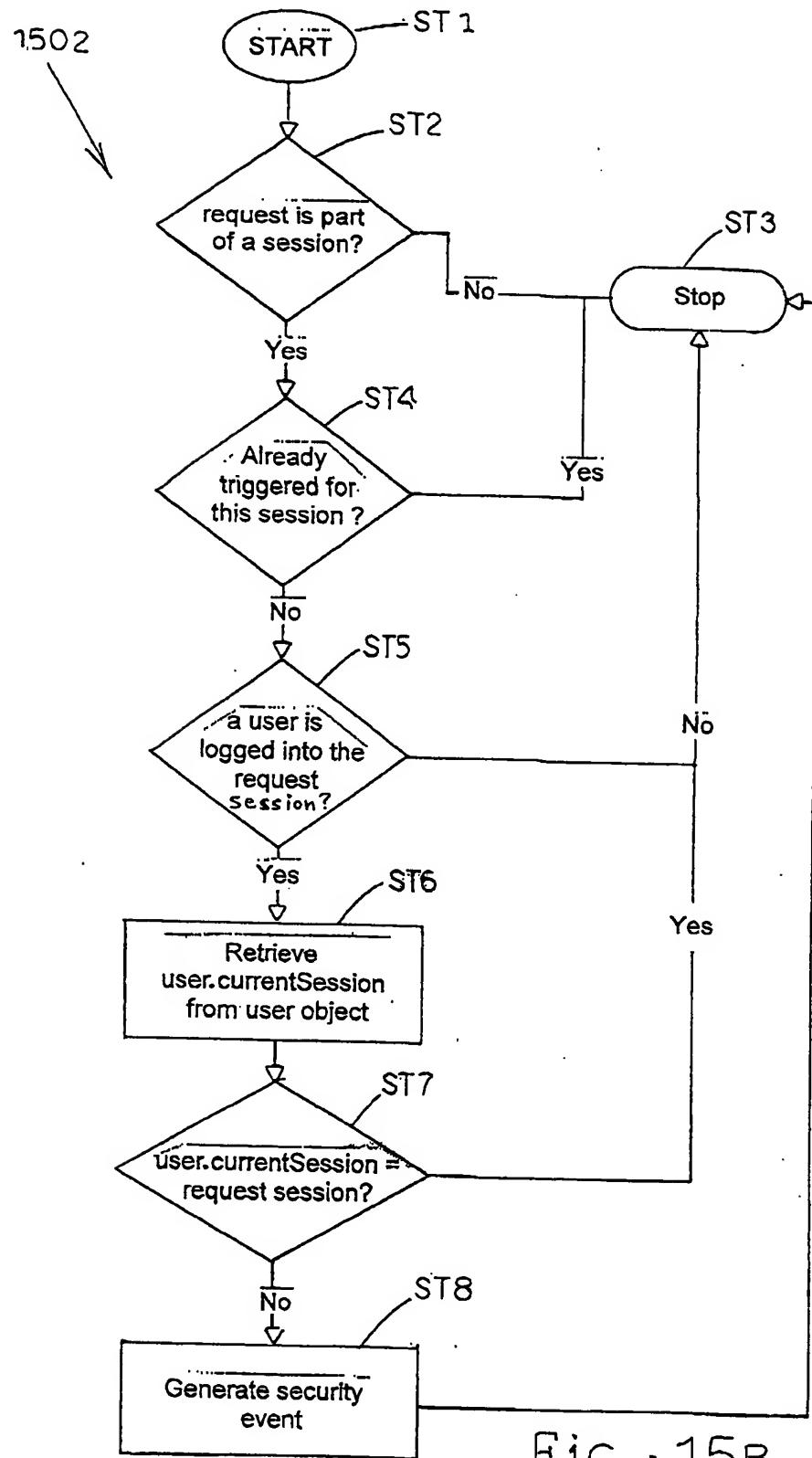


Fig. 15B

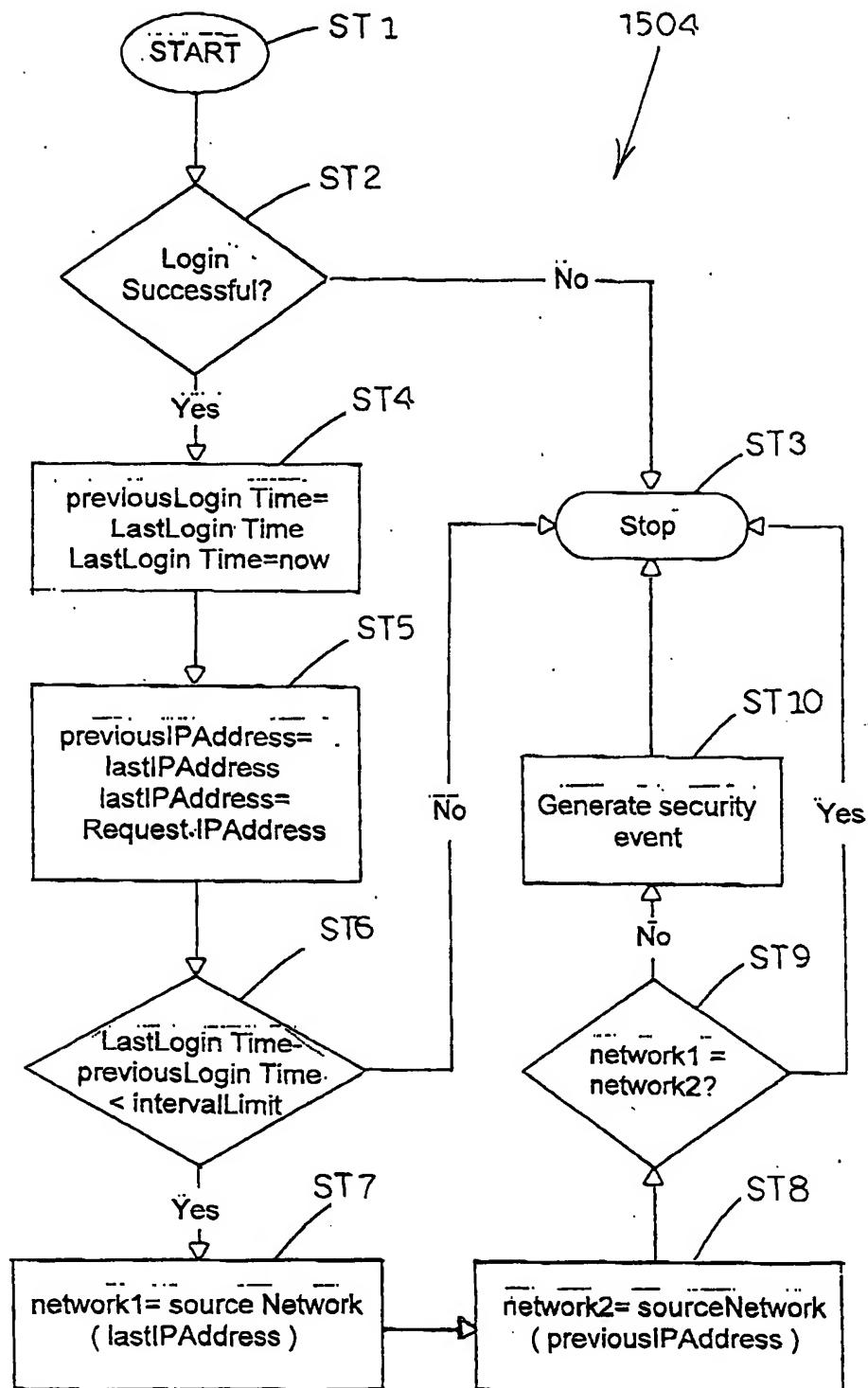
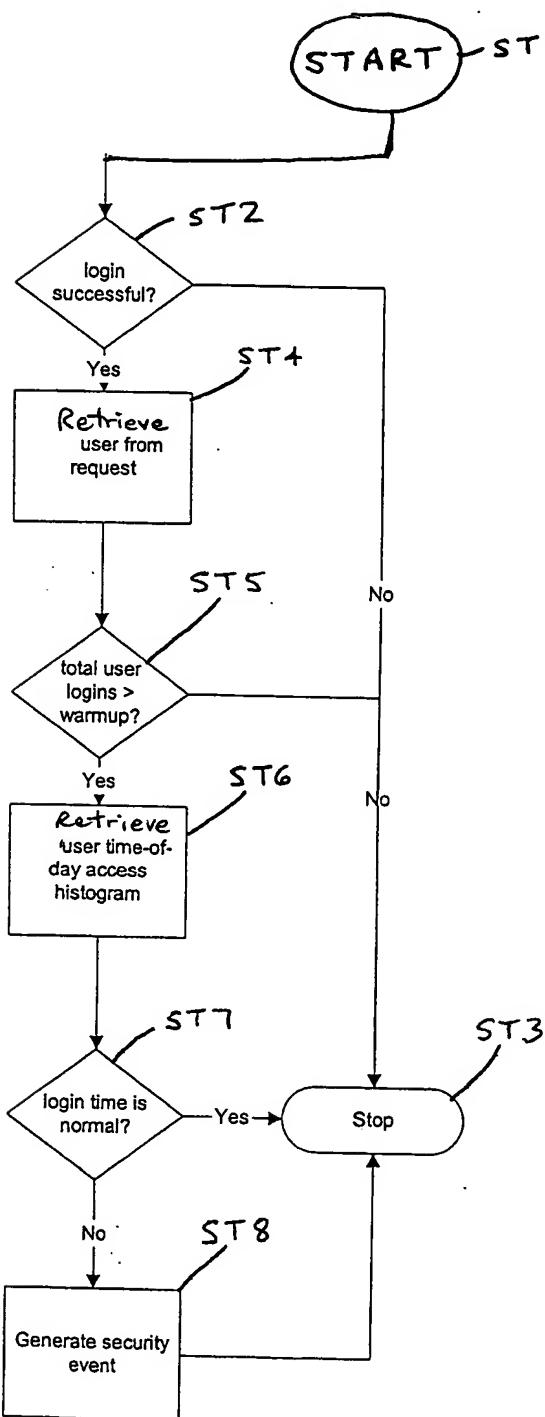


Fig. 15c

1600

FIG. 16A



1602

FIG. 16B

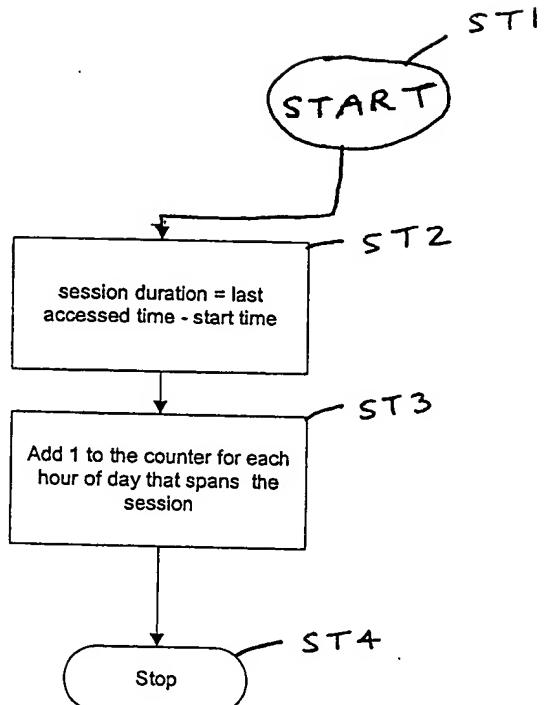


FIG. 17A

1700
↓

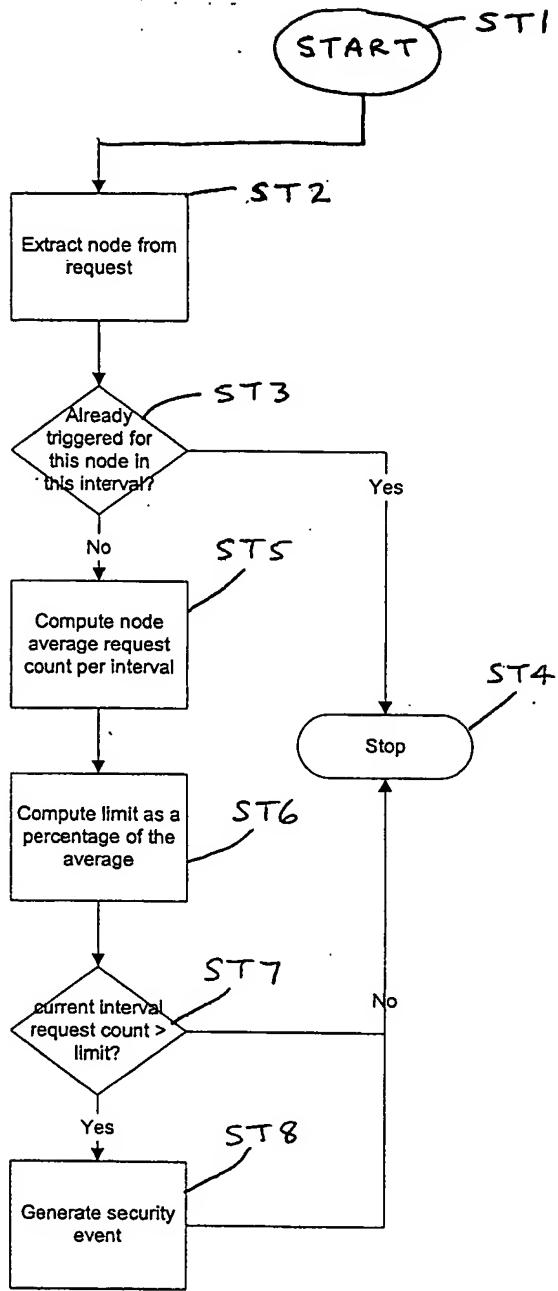


FIG. 17B

1702

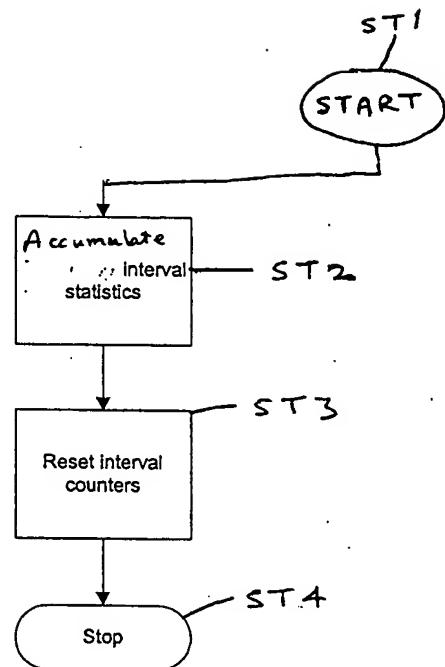


FIG. 18

1800

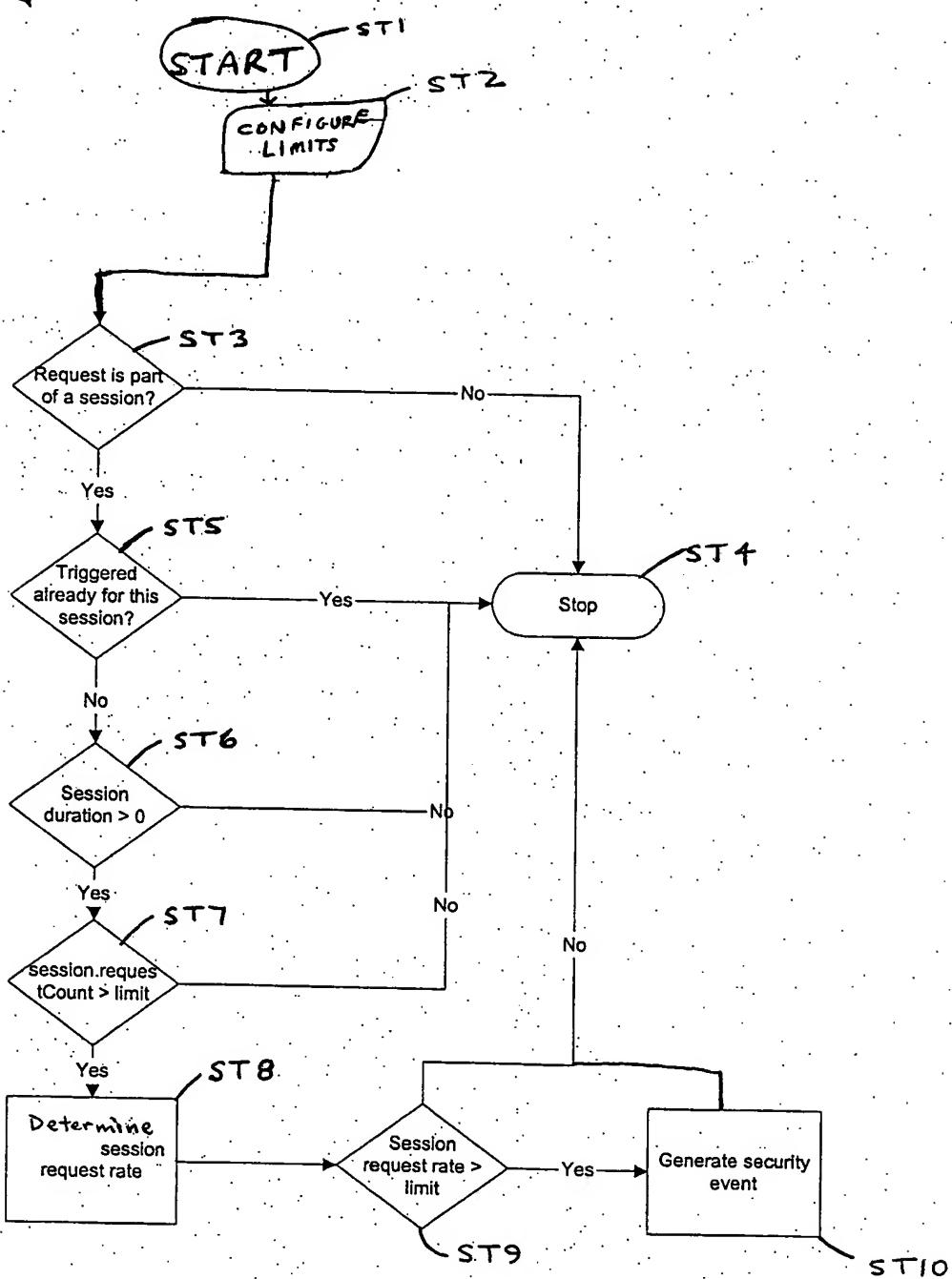


FIG. 19A

19 00
↓

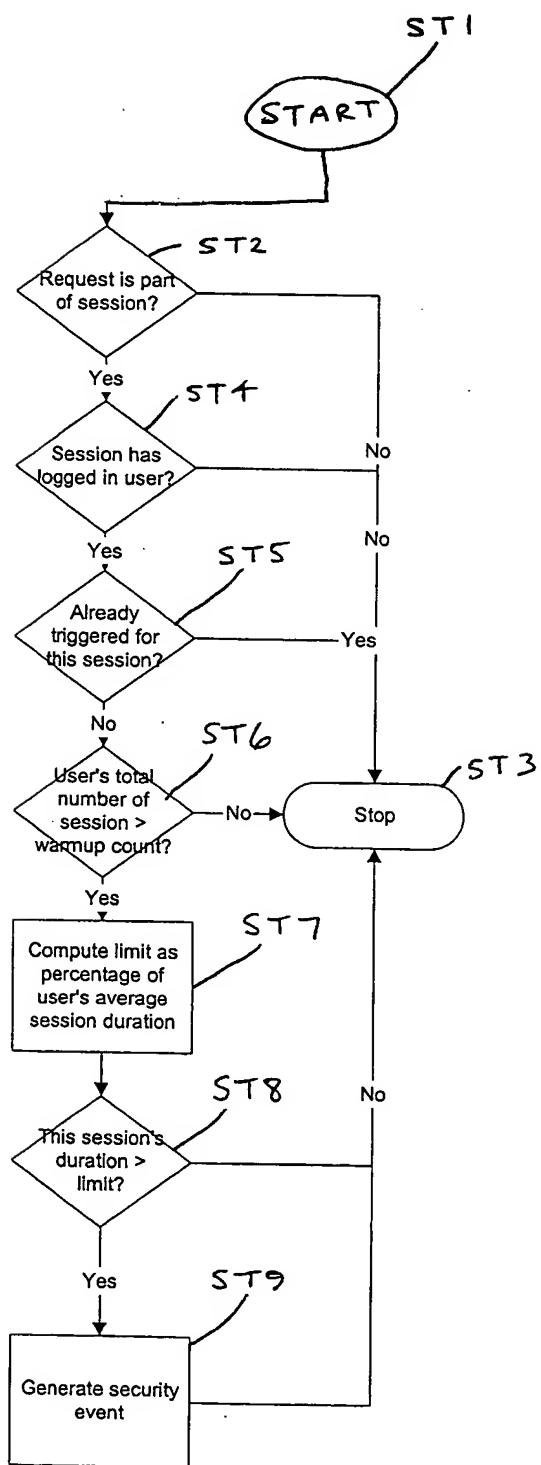
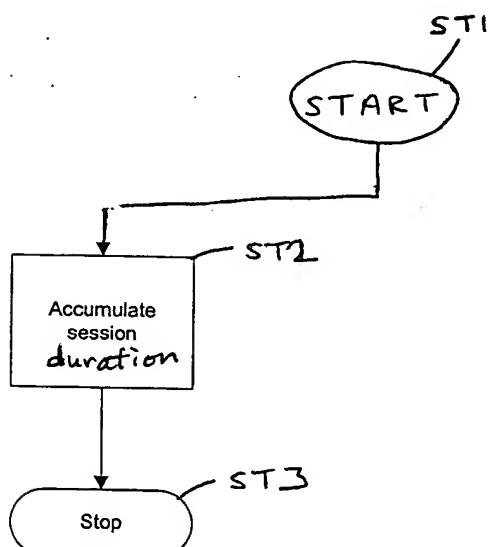


FIG. 19B

19 02
↓



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FIG. 20A

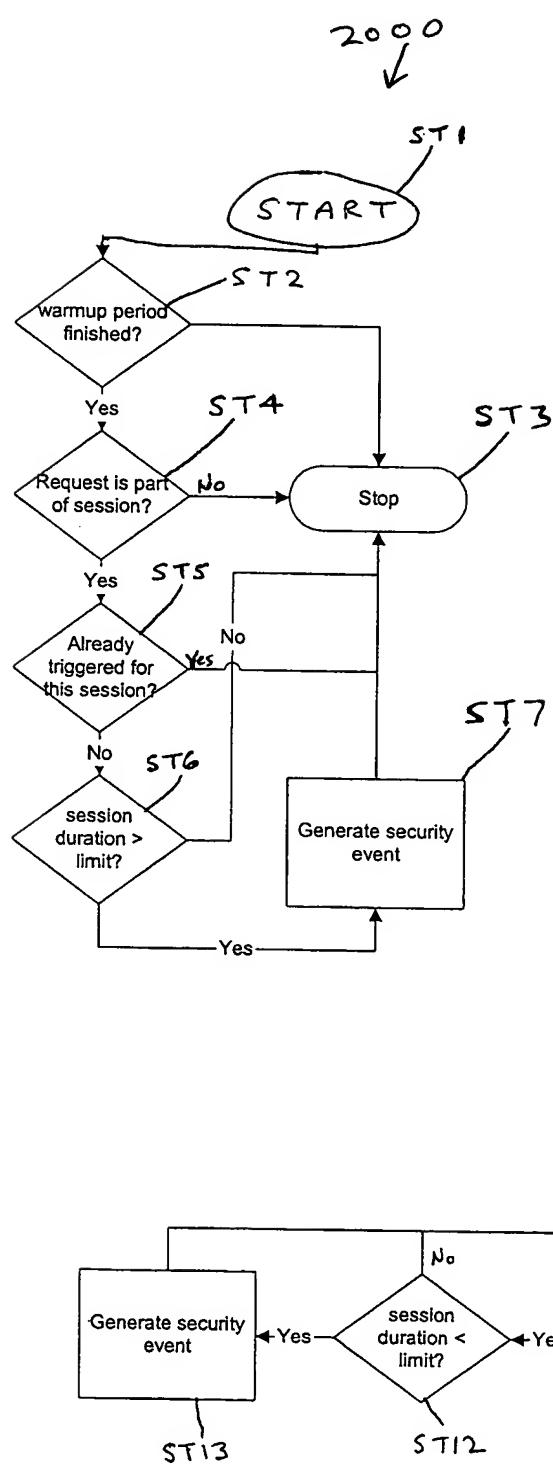
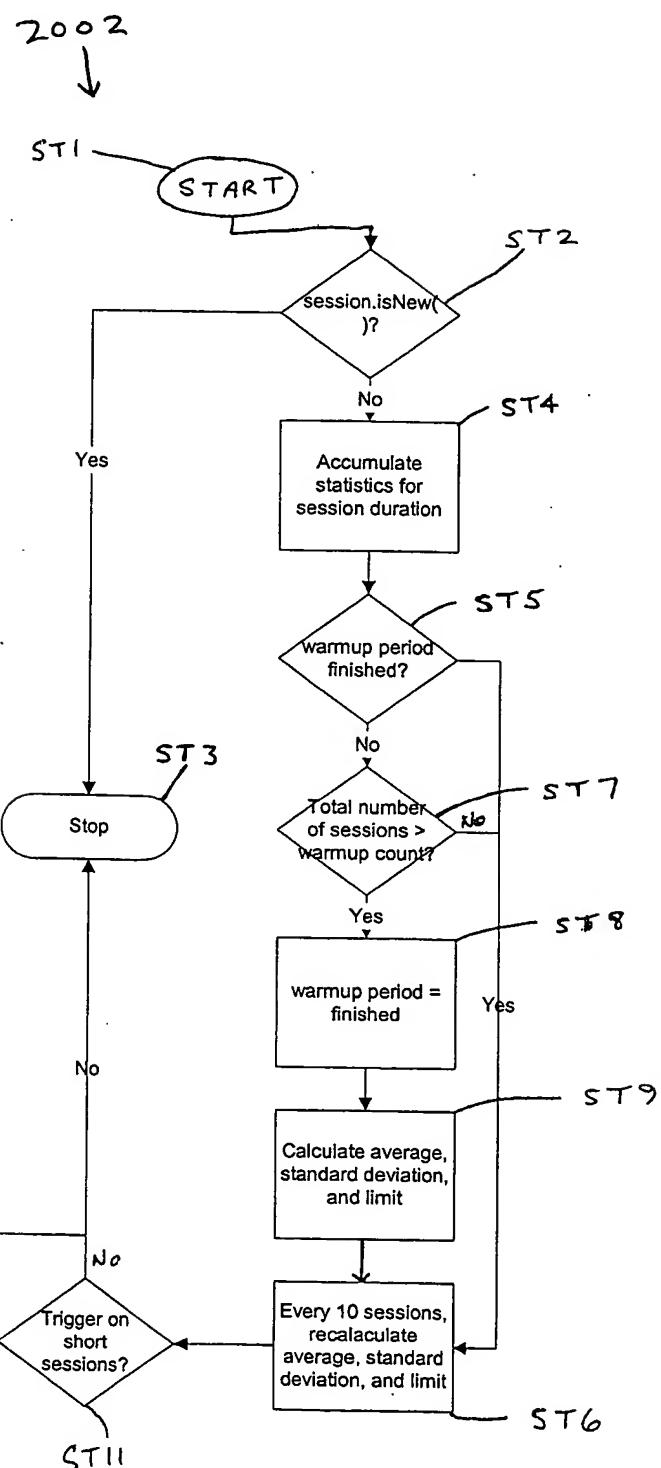


FIG. 20B



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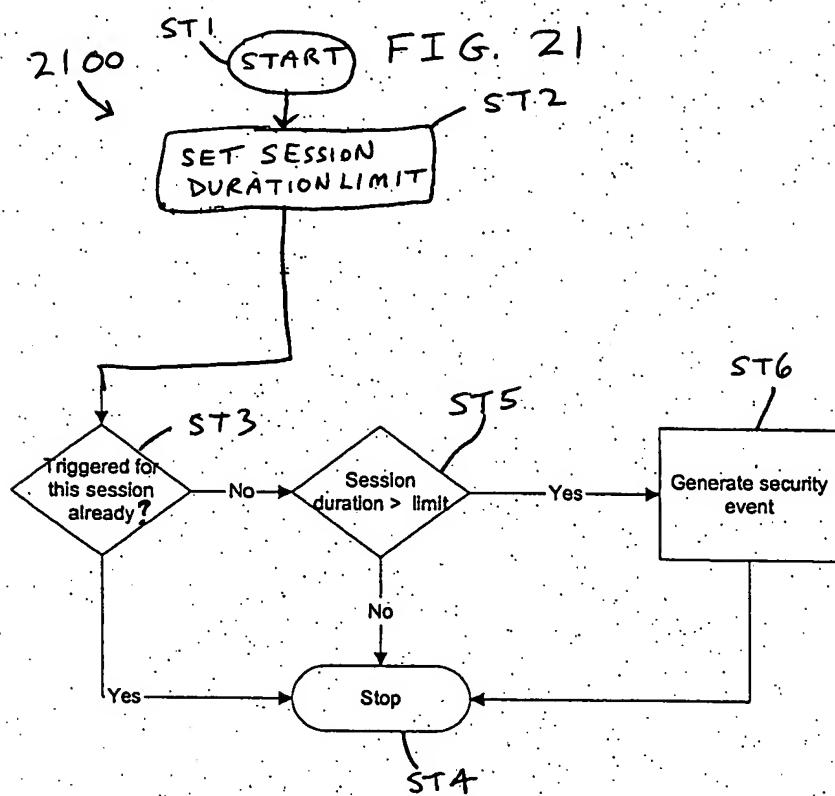


FIG. 22A

2200
 ↓

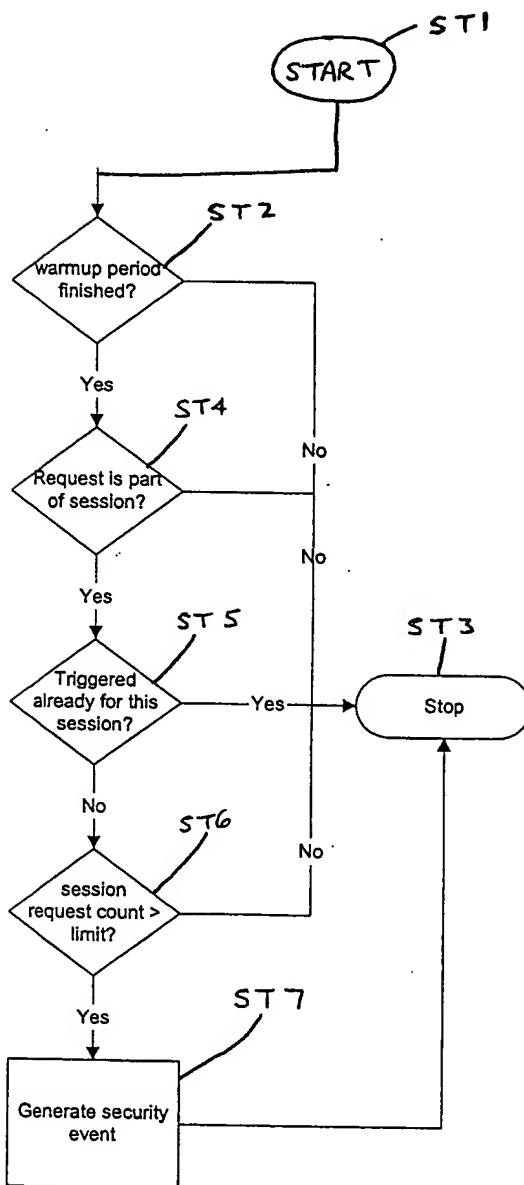


FIG. 22B

2202
 ↓

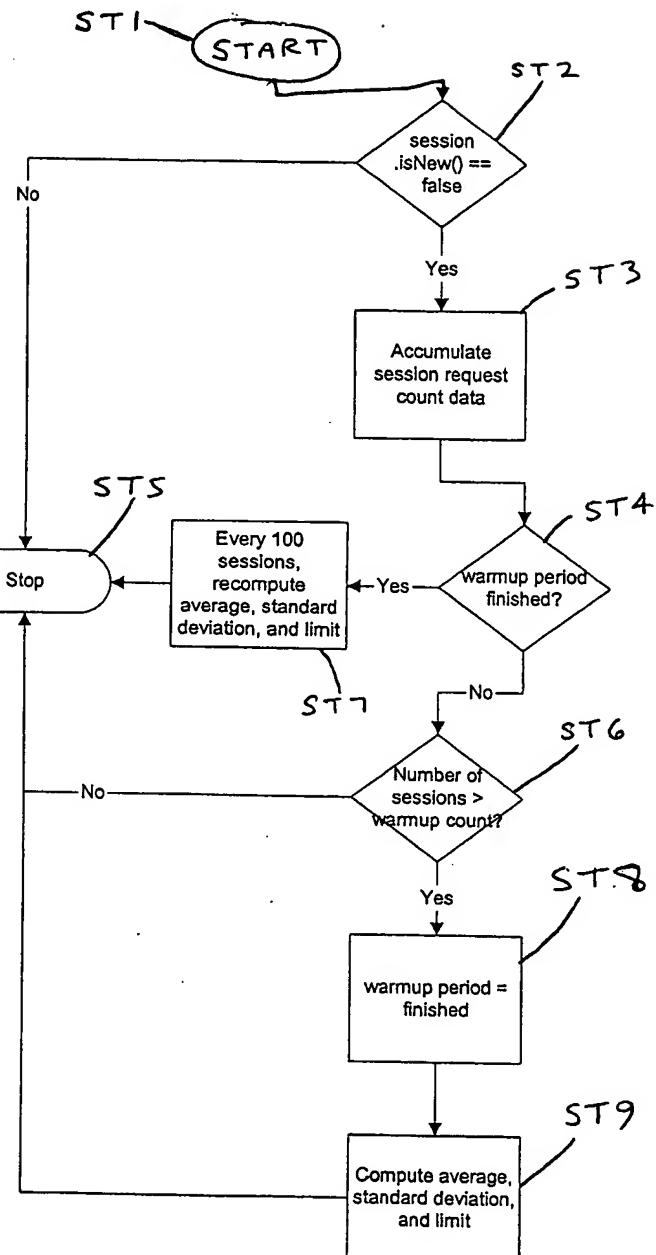


FIG. 23A

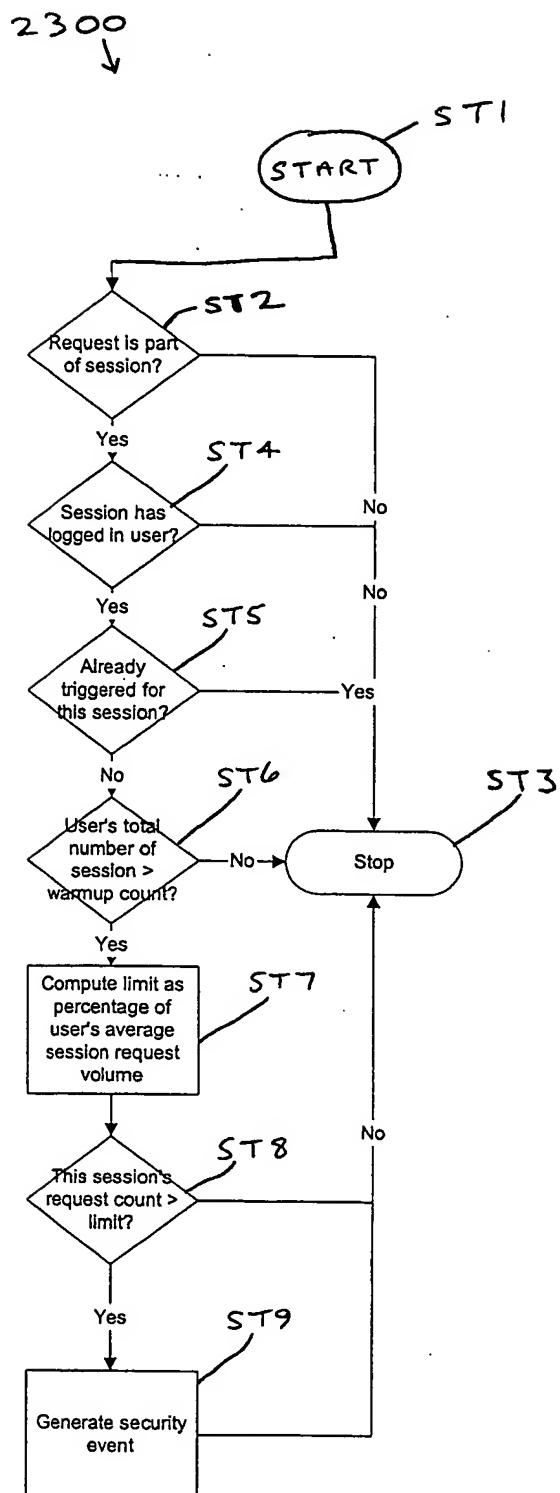
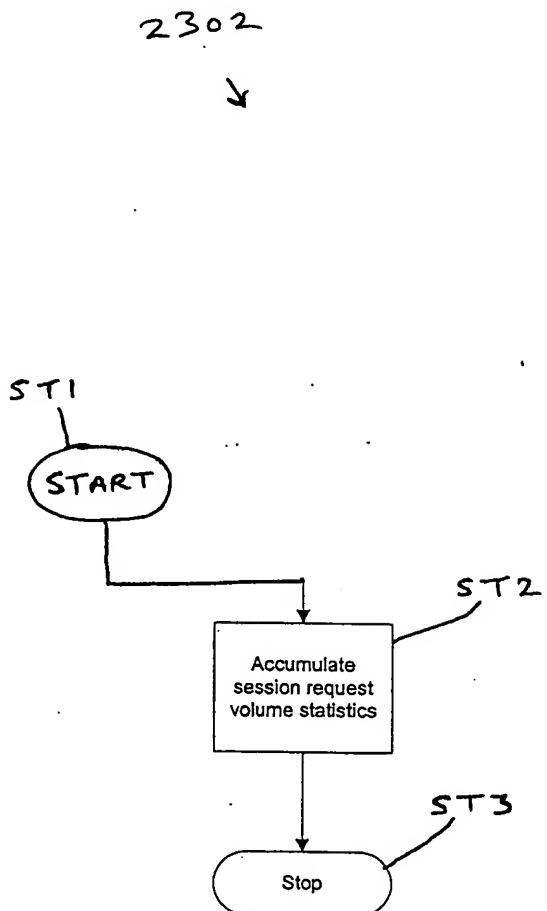


FIG. 23B



Title: METHODS, SYSTEMS AND COMPUTER
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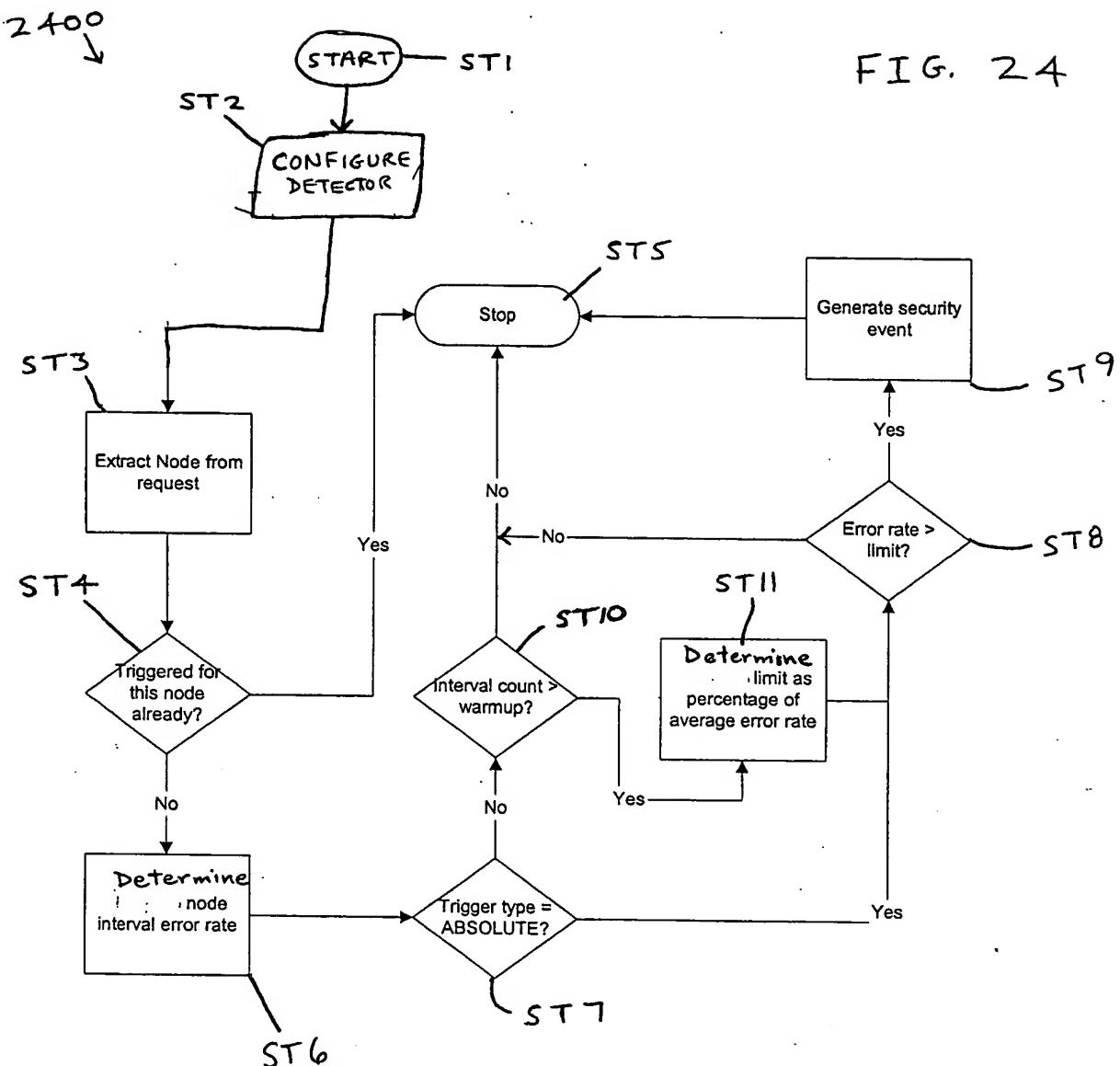
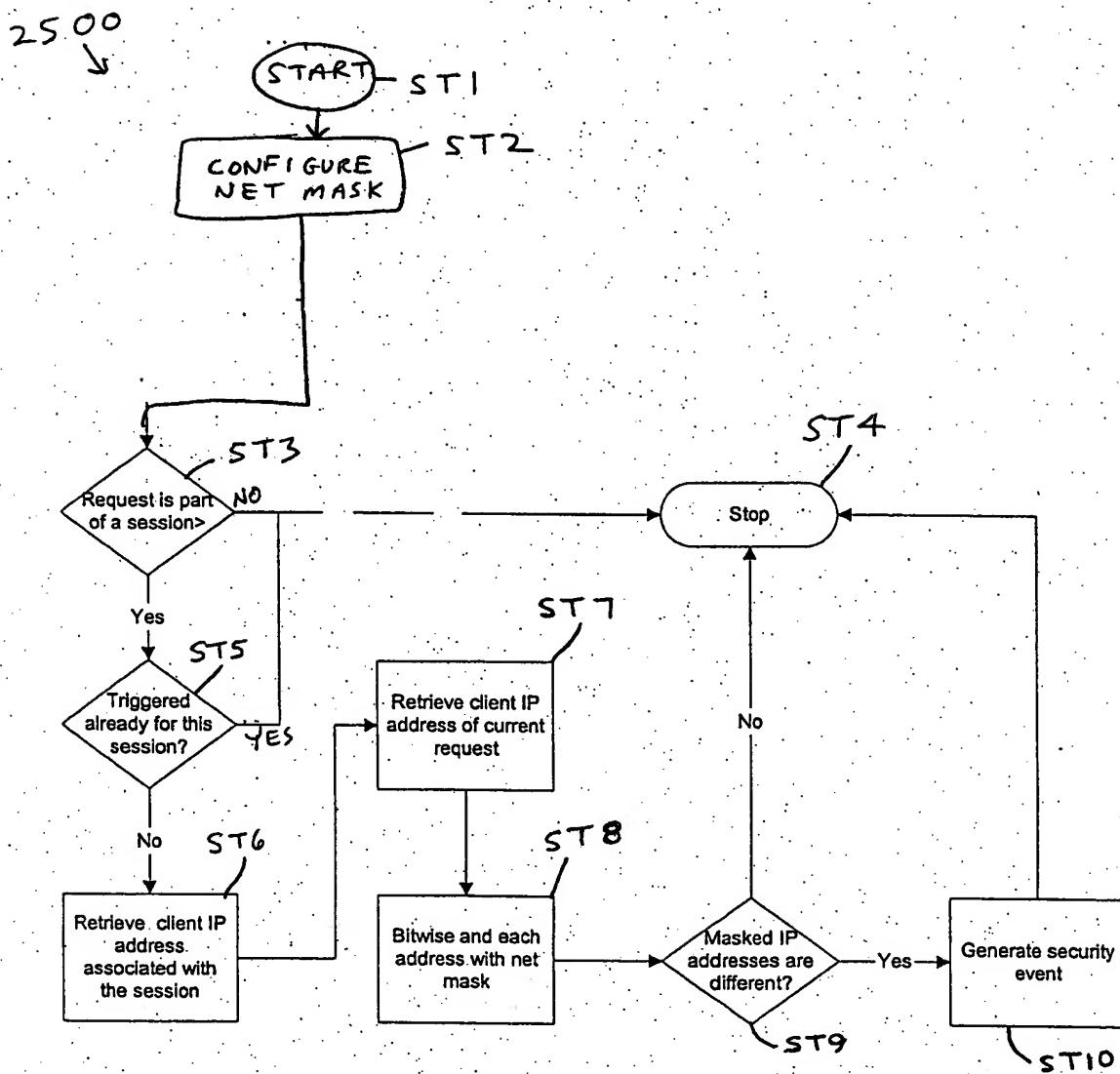


FIG. 24

FIG. 25



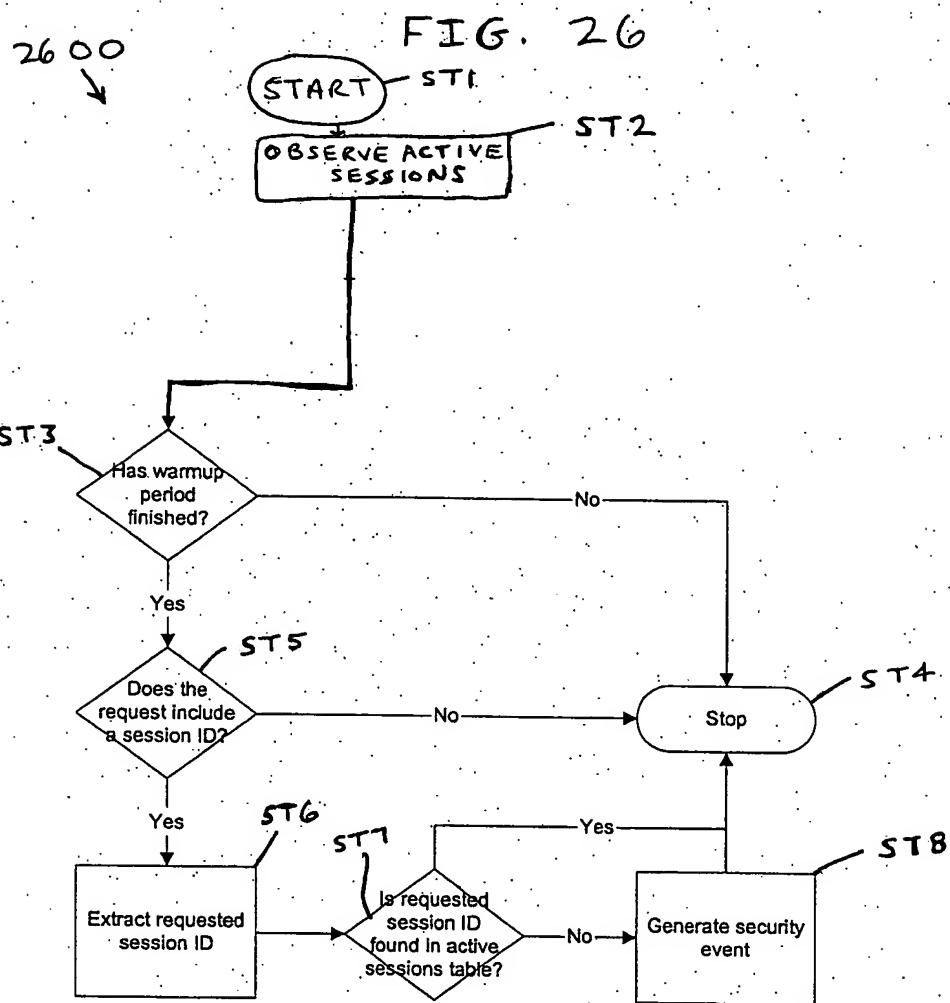
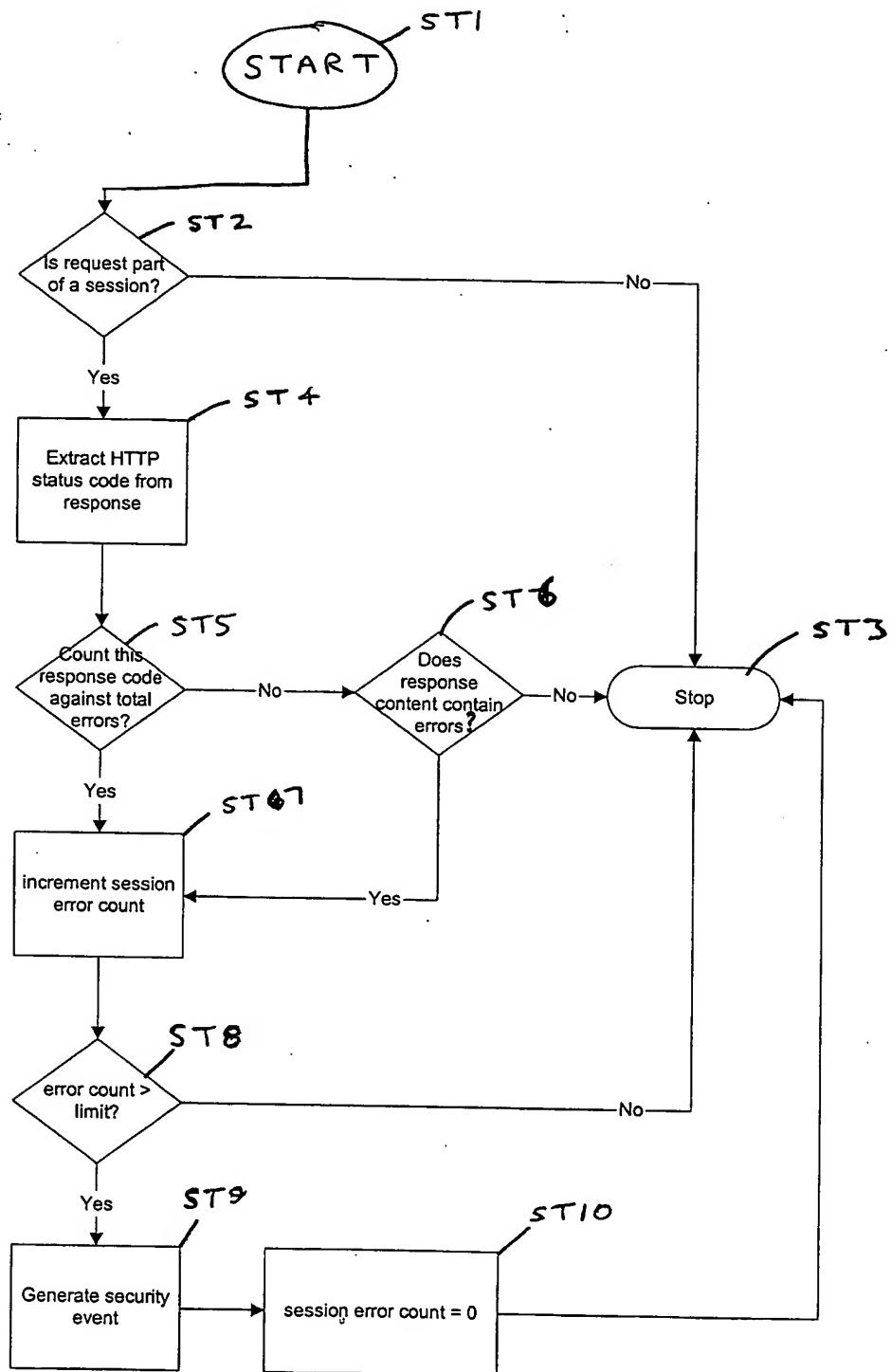


FIG. 27

2700



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28-00

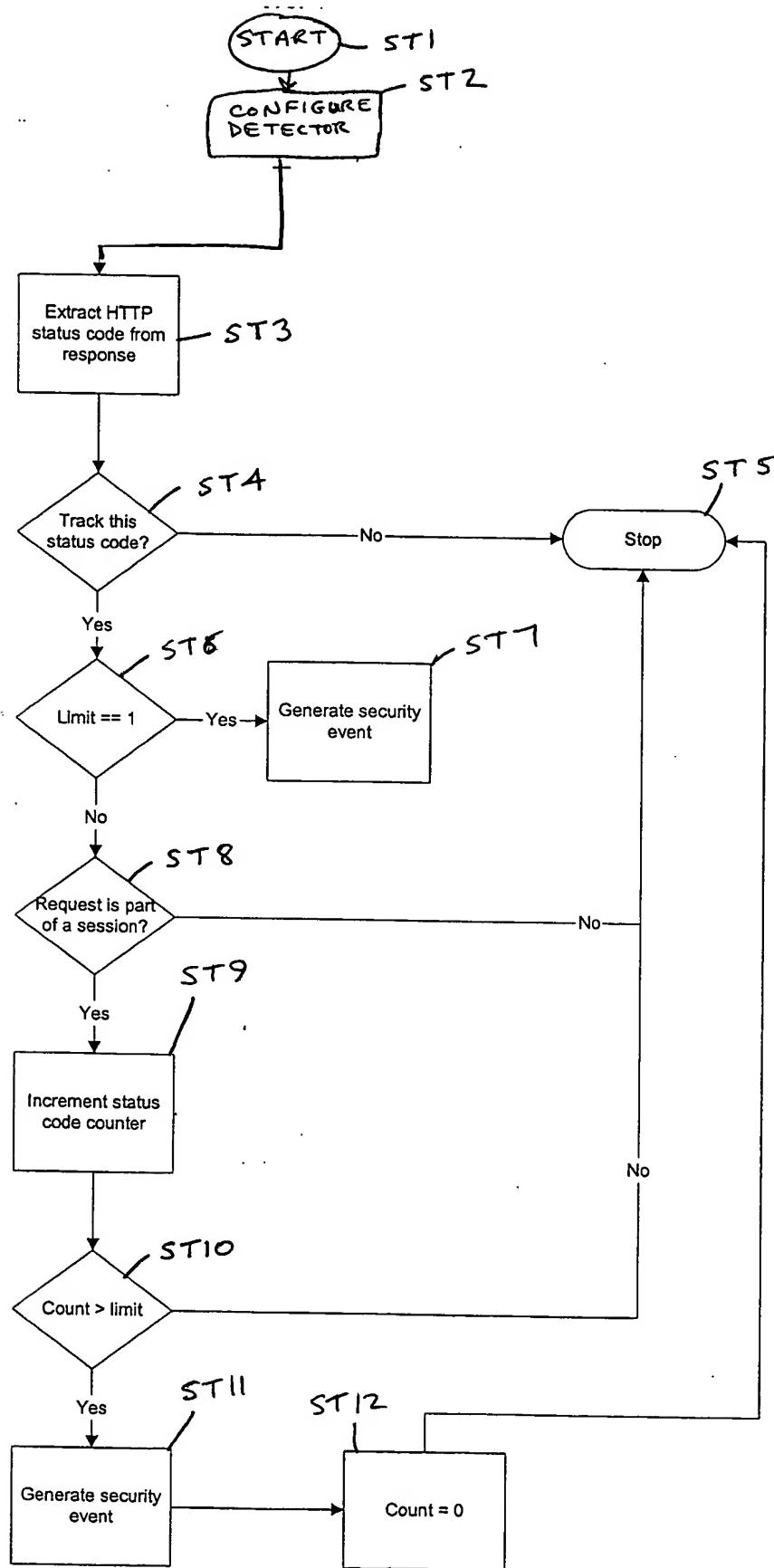


FIG. 28

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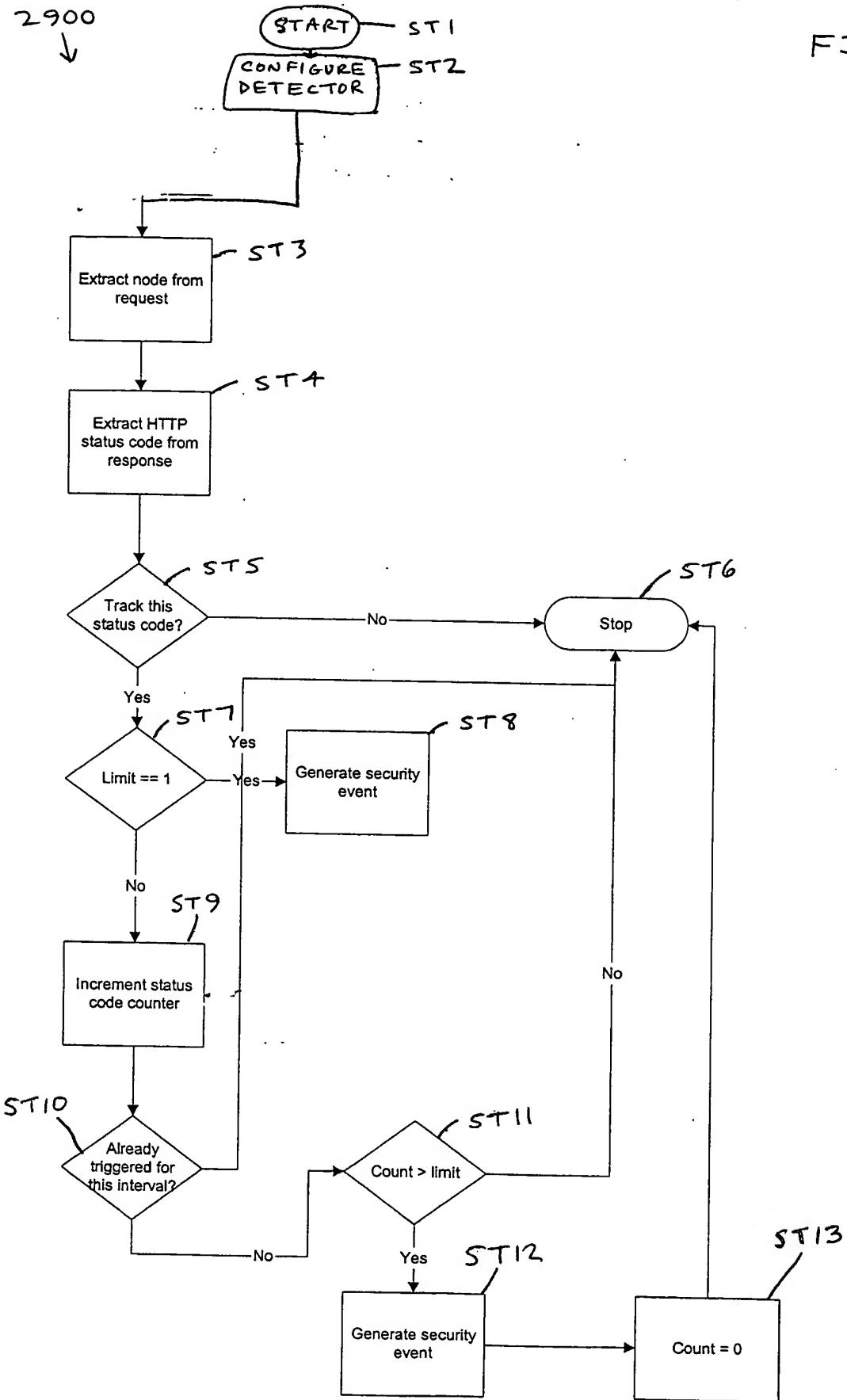
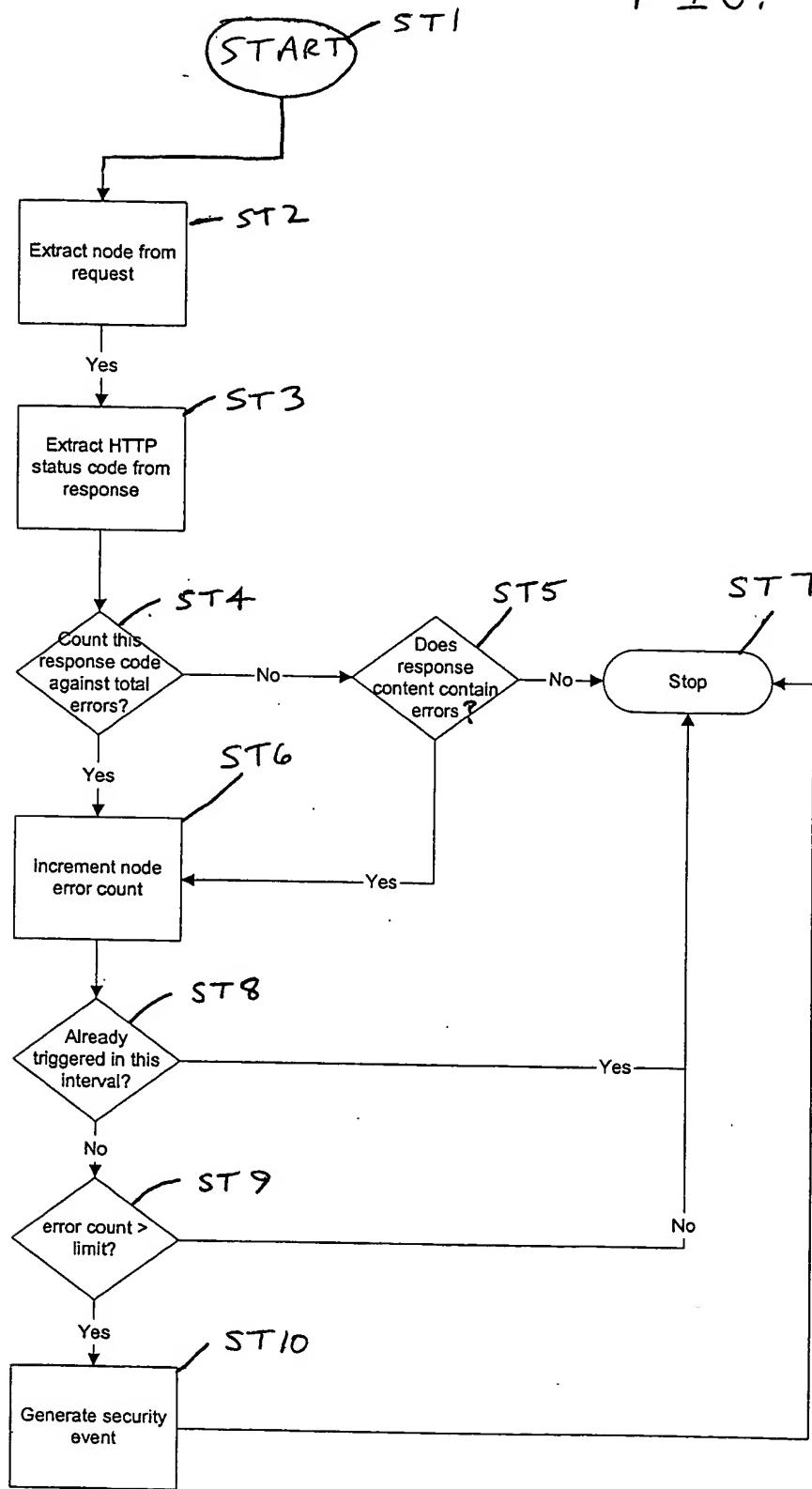


FIG. 29

3000

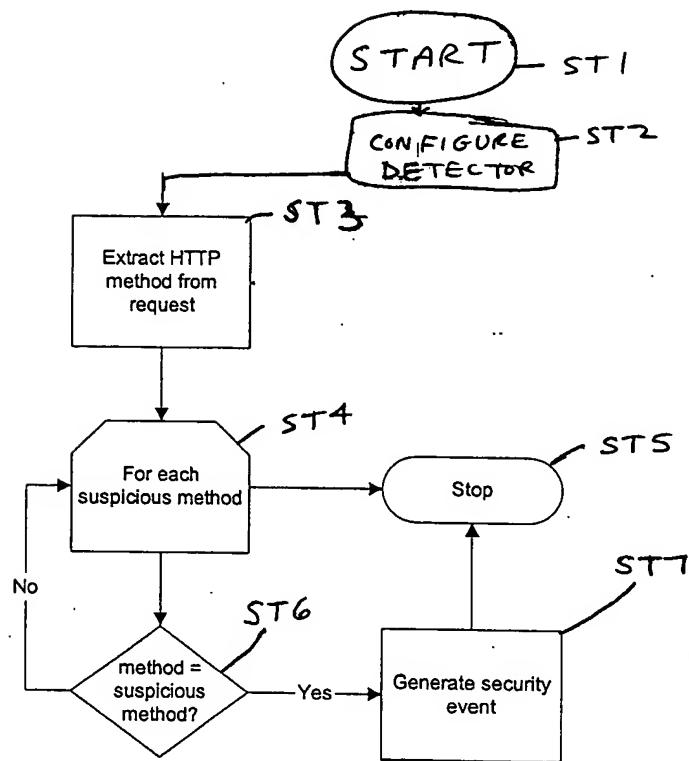
FIG. 30



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FOR A SERVER APPLICATION
Atty Docket: 15037

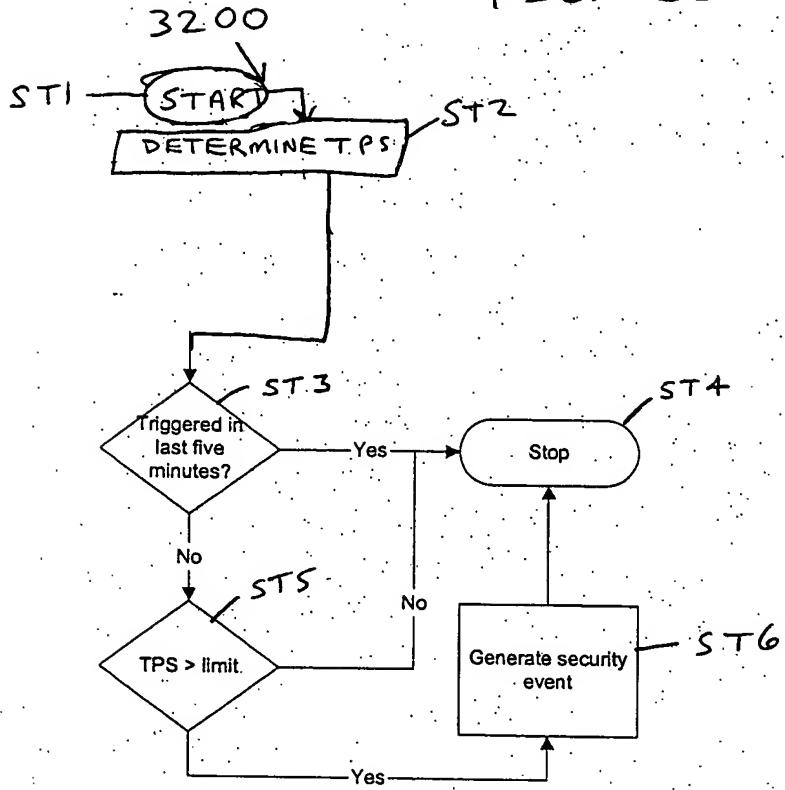
3100
↓

FIG. 31



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FIG. 32



3300 FIG. 33A.

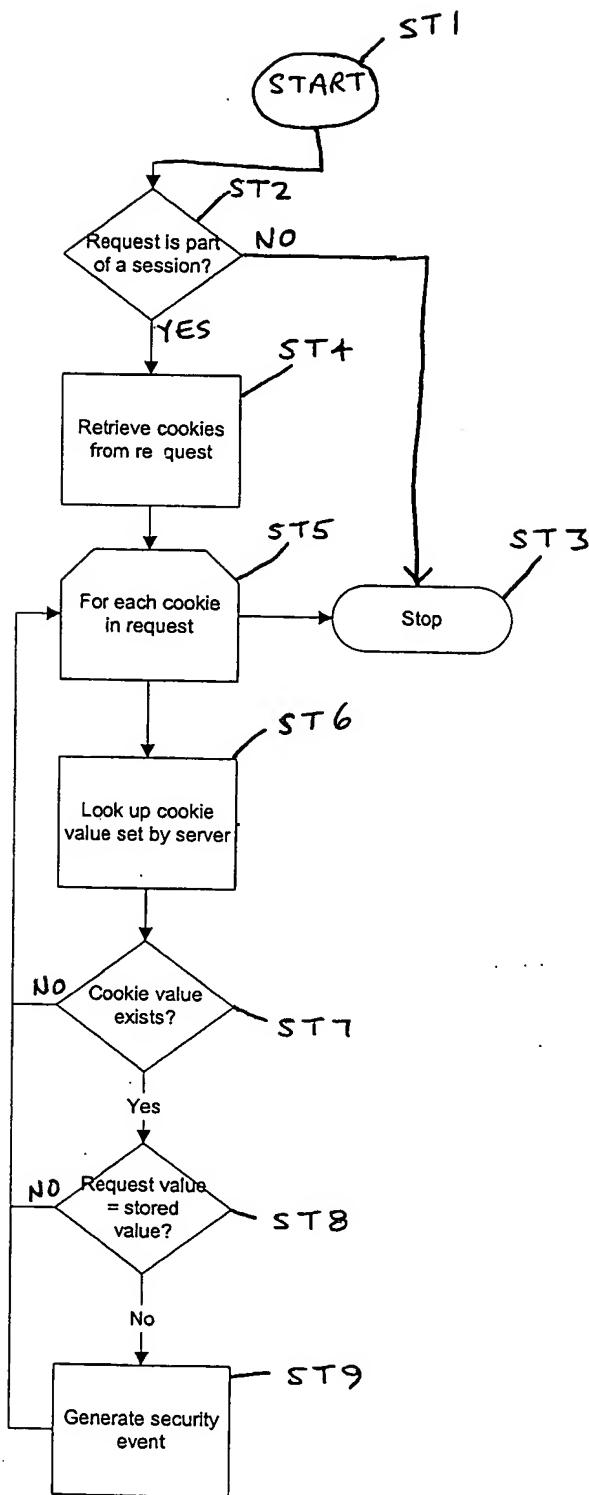


FIG. 33B

3302

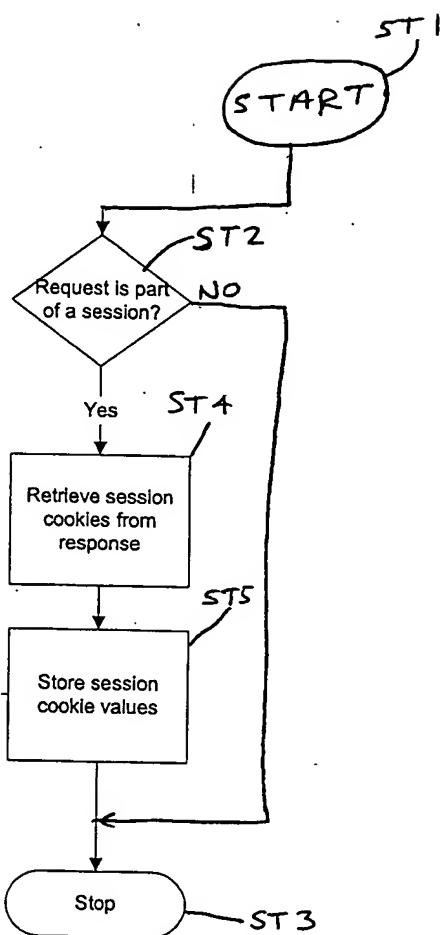


FIG. 34A

3400

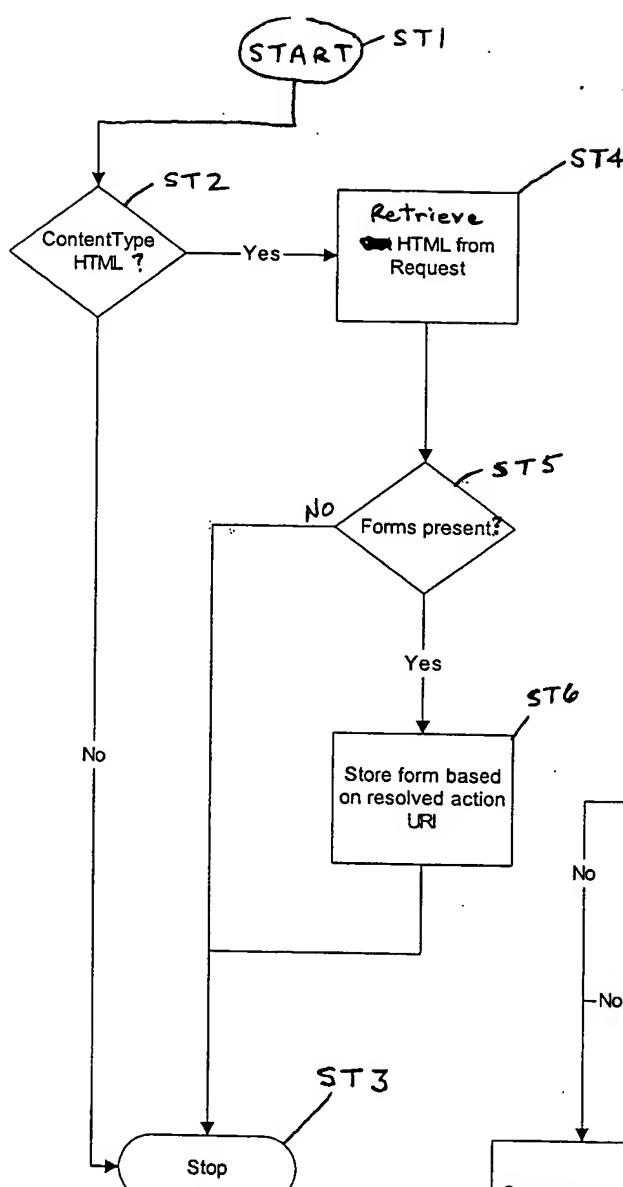
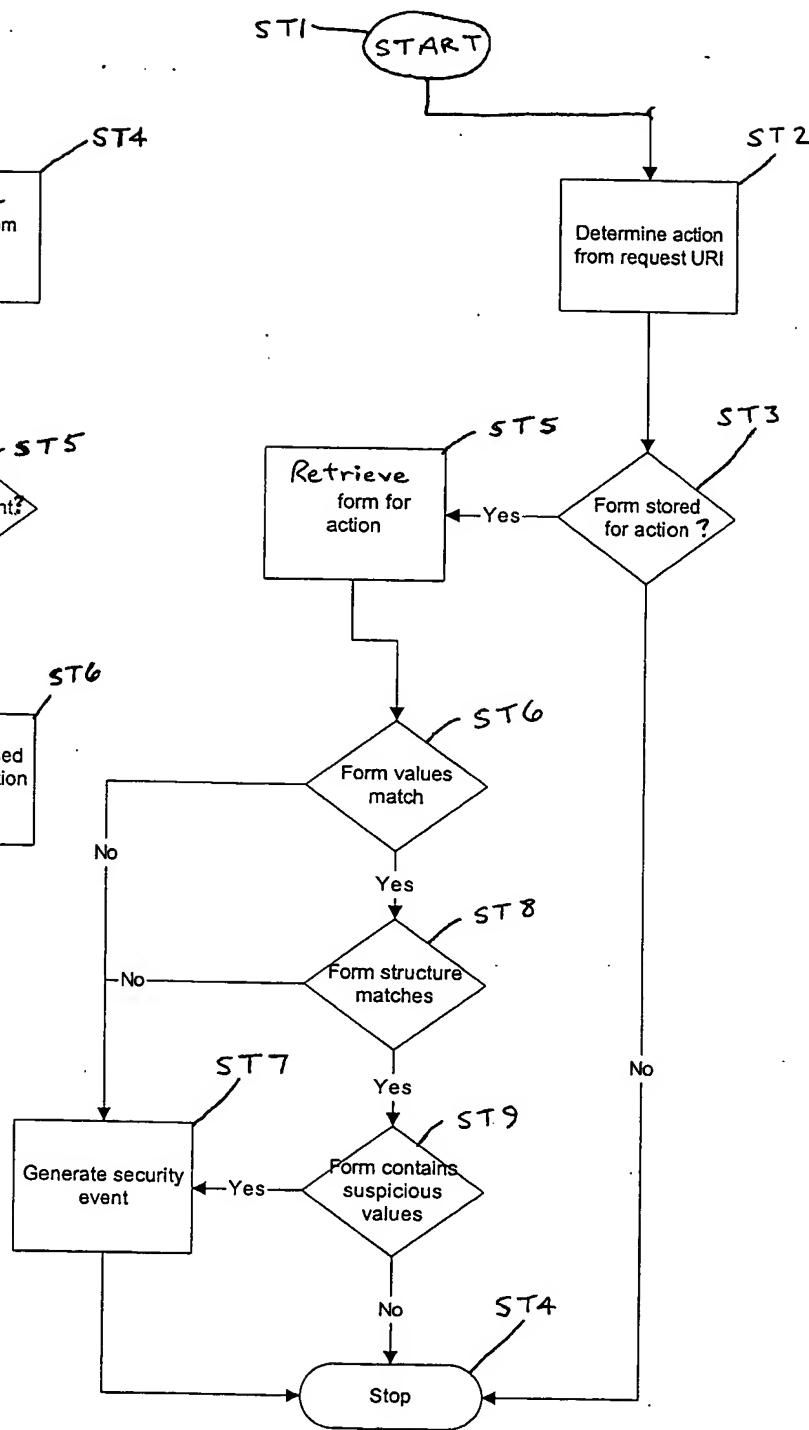


FIG. 34B

3402



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FOR A SERVER APPLICATION
Atty Docket: 1503/7

FIG. 35

3500

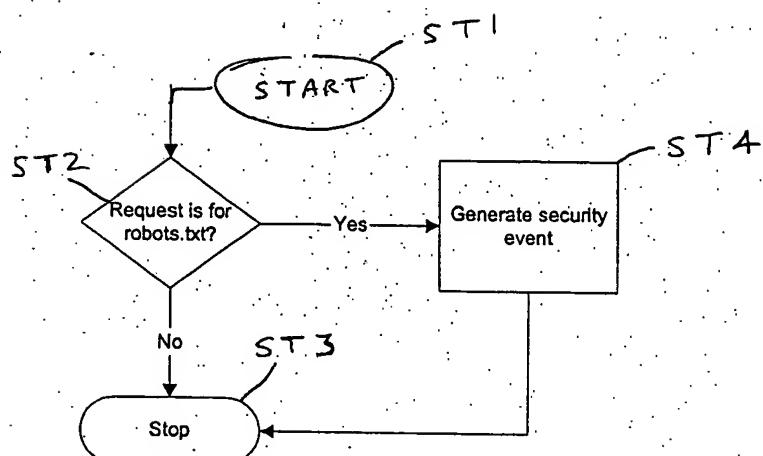
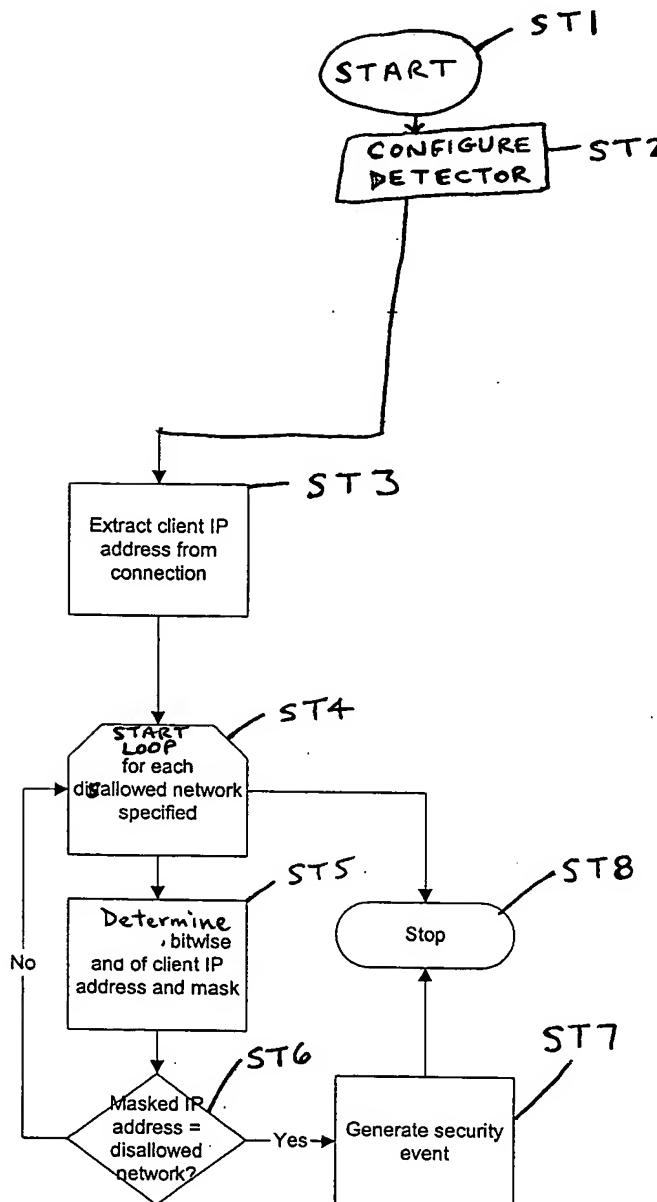


FIG. 36

3600



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FIG. 37

3700

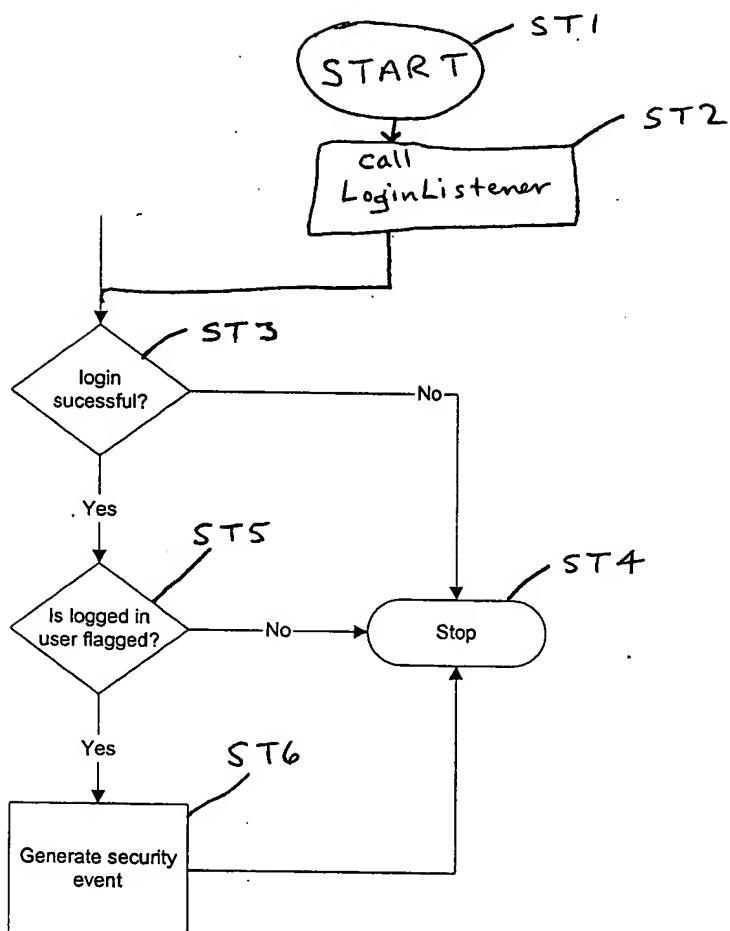
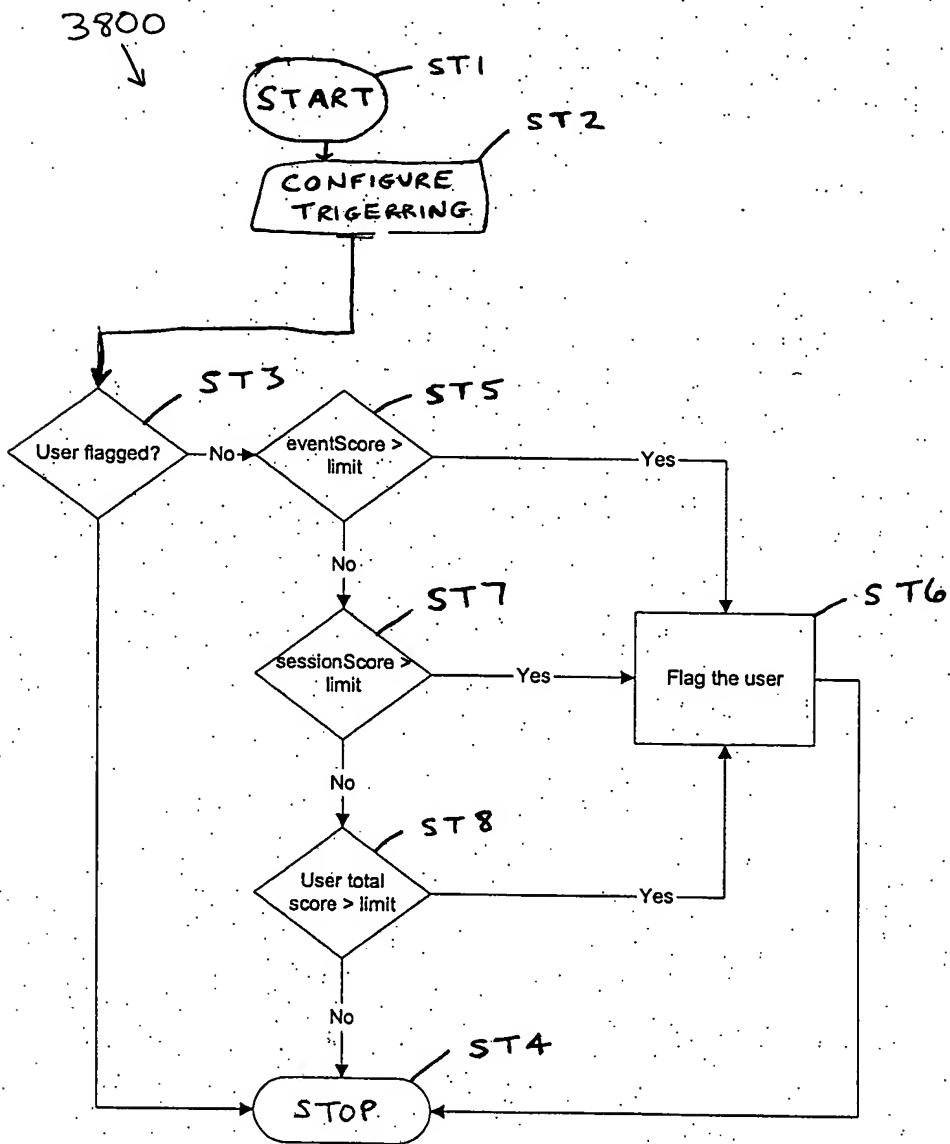


FIG. 38



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F I G.

39

AP S TPS USER

Summary - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: http://192.168.55.211/main.do?page=page_summary

Current Page: Summary Operator: virgilw App Score: 3 TPS: 0.7 Users: 20/31 Time: 10:57 AM

Norton AntiVirus

covelight systems [Replication security intelligence]

3902 3910 3912 3914 3916 5018 3920 3922 3924

AI CI SES SUM

Monitor Analyze Configure

Help About Preferences Logout

USE PAG JHR

Active Sessions

User	Session	Client	Score
gerez	NNPJL...	24.151.41.183	10
gerez	BCAKL...	24.116.140.178	10
gerez	KAACL...	216.187.239.60	10
katied	AEAKL...	216.187.239.60	10
bsmith	LNPJL...	205.216.186.2	10
bsmith	LMPJL...	216.28.152.96	10
bsmith	NHBKL...	205.216.186.2	10
lthrash	TEAKL...	216.253.195.146	10
shelton	LCAKL...	216.187.239.60	10

Active Users

User	Client	Score	Flagged
wallace	24.123.144.98	10	N
shelton	216.187.239.60	10	N
lthrash	216.253.195.146	10	N
katied	216.187.239.60	10	N
jon	208.61.139.123	10	N
gerez	216.187.239.60	10	N
bsmith	216.28.152.96	10	N
swilkins123	16.92.93.6	0	N
sshipton	216.187.239.60	0	N

Pages

URI	Score	Events	Requests
/manual/_DOC.asp	10	1	6
/comm/messageDetail.asp	10	1	10
/calendar/calendar.asp	10	1	9
/budget/selectionDetail...	10	1	113
/budget/itemAddMod.asp	10	1	134
/weather/local_radar.asp	0	0	0
/vbs_utils.vbs	0	0	91
/uploads/weather_data/...	0	0	0
/uploads/weather_data/...	0	0	0

Recent Threats

Time	User	Client	Score
1/16/04 10:52 AM	katied	216.187.239.60	0
1/16/04 10:51 AM	btaylor	24.11.194.43	0
1/16/04 10:51 AM	btaylor	24.11.194.43	0
1/16/04 10:48 AM		195.101.94.101	10
1/16/04 10:42 AM	lthrash	216.253.195.146	10
1/16/04 10:40 AM	lthrash	216.253.195.146	0
1/16/04 10:40 AM	lthrash	216.253.195.146	0
1/16/04 10:39 AM	joshs	216.187.239.60	0
1/16/04 10:39 AM	katied	216.187.239.60	10

3926 3928 3930 3932 3934 3936 3938 3940

3906 3908

Internet

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FIG.
 40A

4000

Sessions - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites Media

Address http://192.168.55.211/main.do?page=page_sessions Current Page: Sessions Operator: virgilw App Score: 3 TPS: 0.7 Users: 20/31 Time: 10:58 AM

Norton AntiVirus

covelight systems (application security intelligence)

Monitor Analyze Configure

Help About Preferences Logout

SES USE PAG THR

Summary Sessions Users Pages Threats

4028 4018 4030 4020 4022 4024 4026

Application Sessions

Refresh Reset Filter Export CSV Export XML

Sessions Status Summary Client Summary Date Summary

Showing 1-15 of 500 (1135 Total Items)

User	Session ID	Threat score ▼	Start time	Requests	Client	Server
Hank.Cyndy	MCBKLCADGOMEPMBJD...	100	1/15/04 8:35 PM	11	205.188.208.168	192.168.2.19
Hank.Cyndy	MCBKLCADGOMEPMBJD...	100	1/15/04 2:13 AM	11	205.188.208.168	192.168.2.19
Hank.Cyndy	MCBKLCADGOMEPMBJD...	100	1/16/04 7:52 AM	11	205.188.208.168	192.168.2.19
?	LOAKLCADHHFMCOGBO...	90	1/16/04 7:19 AM	50	68.118.56.35	192.168.2.19
?	LOAKLCADHHFMCOGBO...	80	1/16/04 1:40 AM	50	68.118.56.35	192.168.2.19
?	LOAKLCADHHFMCOGBO...	80	1/15/04 8:01 PM	50	68.118.56.35	192.168.2.19
kated	AEAKLCADB1INMCLKI...	70	1/16/04 4:55 AM	691	216.187.239.60	192.168.2.19
kated	AEAKLCADB1INMCLKI...	50	1/15/04 11:17 PM	691	216.187.239.60	192.168.2.19
?	JCBKLCADCCBPNCFNP...	50	1/16/04 2:13 AM	4	205.188.209.78	192.168.2.19
?	JDBKLCADHHMBMKFHC...	50	1/15/04 5:45 PM	7	64.129.64.42	192.168.2.19
?	ECBKLCA DBL1HNMFPA...	50	1/16/04 7:48 AM	17	198.81.26.40	192.168.2.19
?	NBBKLCADABKLPGMGM...	50	1/16/04 7:42 AM	2	198.81.26.175	192.168.2.19
?	NBBKLCADABKLPGMGM...	50	1/16/04 2:03 AM	2	198.81.26.175	192.168.2.19
?	L1AKLCADHTEHPGJPT...	50	1/16/04 12:32 AM	1	152.163.145.12	192.168.2.19
?	ECBKLCA DBL1HNMFPA...	50	1/16/04 2:09 AM	17	198.81.26.40	192.168.2.19

4004 4006 4008 4010 4012 4014 4016

4002

Internet

FIG. 40B

4032

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Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites Media Options

Address http://192.168.55.171/page_sessions_cardmanager-card=method_bb

Google Search Web Options

Current Page: Sessions Operator: admin App Score: 0 TPS: 0 Users: 0/12772 Time: 2:34 AM

Logout Preferences Help About

Dashboard Sessions Users Pages Threats

coevlight systems

application security intelligence

Session's Sessions

Application Sessions

Export CSV Export XML

Refresh Reset Filter

Sessions Activity Summary Client Summary Threat Summary Date Summary

Activity	Session Count	Total Threat Score
Completed	13226	7720

Internet

F T G. 4 OC 4034

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Sessions - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://192.168.55.171/page_sessions_cardmain#page_sessions_cardmain#clients tab

Google Back Search Web Options Norton Antivirus

Current Page: Sessions Operator: admin App Score: 0 TPS: 0 Users: 0/12772 Time: 2:35 AM

Help About Preferences Logout

Dashboard sessions Users Pages Threats

coevlight systems (application security intelligence)

Application Sessions

Refresh Reset Filter

Sessions Activity Summary Client Summary Date Summary

Client 192.168.50.* ThreatIndex 100% 1226 SessionCount 7720 Total Threat Score 0.00% 0% 12000

Internet

FIG. 40D

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Session: Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Stop Refresh Favorites Search Media

Address:

Google

Current Page: Sessions Operator: admin App Score: 0 TPS: 0 Users: 0/12772 Time: 2:36 AM

Help | About | Preferences | Logout

covelight systems
(Application Security Intelligence)

Monitor Analyze Configure

Application Sessions

Refresh Reset Filter Export CSV Export XML

Sessions Activity Summary Client Summary Date Summary

Days Week Month Daily

Date	Session Count	Total Threat Score
February 8	13226	7720

Internet

FIG.

41

4100

Session Detail - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites Media

Address: http://192.168.55.211/page_sessions.do?rowLink=10742169128341208&tableIndex=0&tableId=page_sessions_table

Current Page: Sessions / Session Detail Operator: virgilw App Score: 3 TPS: 0.4 Users: 20/31 Time: 11:04 AM

covelight systems (application security intelligence)

Monitor Analyze Configure

Help | About | Preferences | Logout

SUM SES USE PAG THR

Summary Sessions Users Pages Threats

Session Detail

Session: NCBKLCADGOMEPMB:DMNCAEON

User: Hank_Cvndv (Search) Login Method: Login Form

Start Time: 1/15/04 8:35 PM Last Accessed Time: 1/15/04 8:36 PM

Client IP Address: 205.188.208.168 (Search) Server IP Address: 192.168.2.19

Session Threat Score: 100 Request Count: 11

Threats: 4

View Transactions View Threats

4102

4104

Done Internet

Title: METHODS, SYSTEMS AND COMPUTER
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FOR A SERVER APPLICATION
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FIG.

4200

42

Users - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: http://192.168.55.211/main.do?page=page_users

Current Page: Users Operator: virgilw App Score: 3 TPS: 0.5 Users: 20/31 Time: 10:58 AM

Help | About | Preferences | Logout
SUM7 SES USE PAG THR
Summary Sessions Users Pages Threats

covelight systems (application security intelligence)

4220 4222 4224 4226 4228

Application Users

Refresh Reset Filter

Users Flagged Summary Client Summary Last Login Summary

Showing 1-13 of 31 (31 Total Items)

User	Current Score	Max Score	Total Score	Total Requests	Avg Requests	Client	Flagged
wallace	10	10	50	82	13	24.123.144.98	N
rhelton	10	20	40	60	20	216.187.239.60	N
lthrash	10	30	100	520	57	216.253.195.146	N
kated	10	70	80	1382	172	216.187.239.60	N
jon	10	25	50	888	296	208.61.139.123	N
gperez	10	20	40	212	70	216.187.239.60	N
bsmith	10	20	40	258	86	216.28.152.96	N
swims123	0	10	20	124	41	68.32.75.6	N
sshipton	0	10	20	36	12	216.187.239.60	N
sdarden	0	10	20	78	26	198.143.244.44	N
scavenger	0	10	30	15	5	216.187.239.60	N
rwarburton	0	40	160	506	46	216.187.239.60	N
mtaylor	0	20	50	598	149	66.180.103.154	N

Reset Delete Search

Internet

4204

4206

4208

4210

4212

4214

4216

4218

4202

FIG. 43

4300

1

4300

4302 4304

Users - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Favorites Media Go Links Norton AntiVirus

Address: http://192.168.55.211/page_users.do?rowlink=wallace&tableIndex=0&tableId=page_users_table

Current Page: [Users / User Detail](#) Operator: [virgilw](#) App Score: 3 TPS: 0.2 Users: 20/31 Time: 11:05 AM

covelight systems (application security intelligence) Monitor Analyze Configure Help About Preferences Logout

SUM [SES](#) [USE](#) [PAG](#) [THR](#)
[Summary](#) [Sessions](#) [Users](#) [Pages](#) [Threats](#)

User Detail

User:	wallace	1/31 (Next)
Current Threat Score:	10	Last Login Time: 1/16/04 9:33 AM
Average Session Score:	8	Longest Session Duration: 1m 36s
Highest Session Score:	10	Average Session Duration: 52 s
Total Threat Score:	50	Total Session Time: 5m 13s
Total Threat Count:	11	Last Client IP Address: 24.123.144.98 (Search)
Total HTTP Requests:	82	Last Server IP Address: 192.168.2.19
Average HTTP Requests Per Session:	13	Active Sessions: 2
Last Reset:	Never	Total Sessions: 6

[View Transactions](#) [View Threats](#) Flagged: Notes:

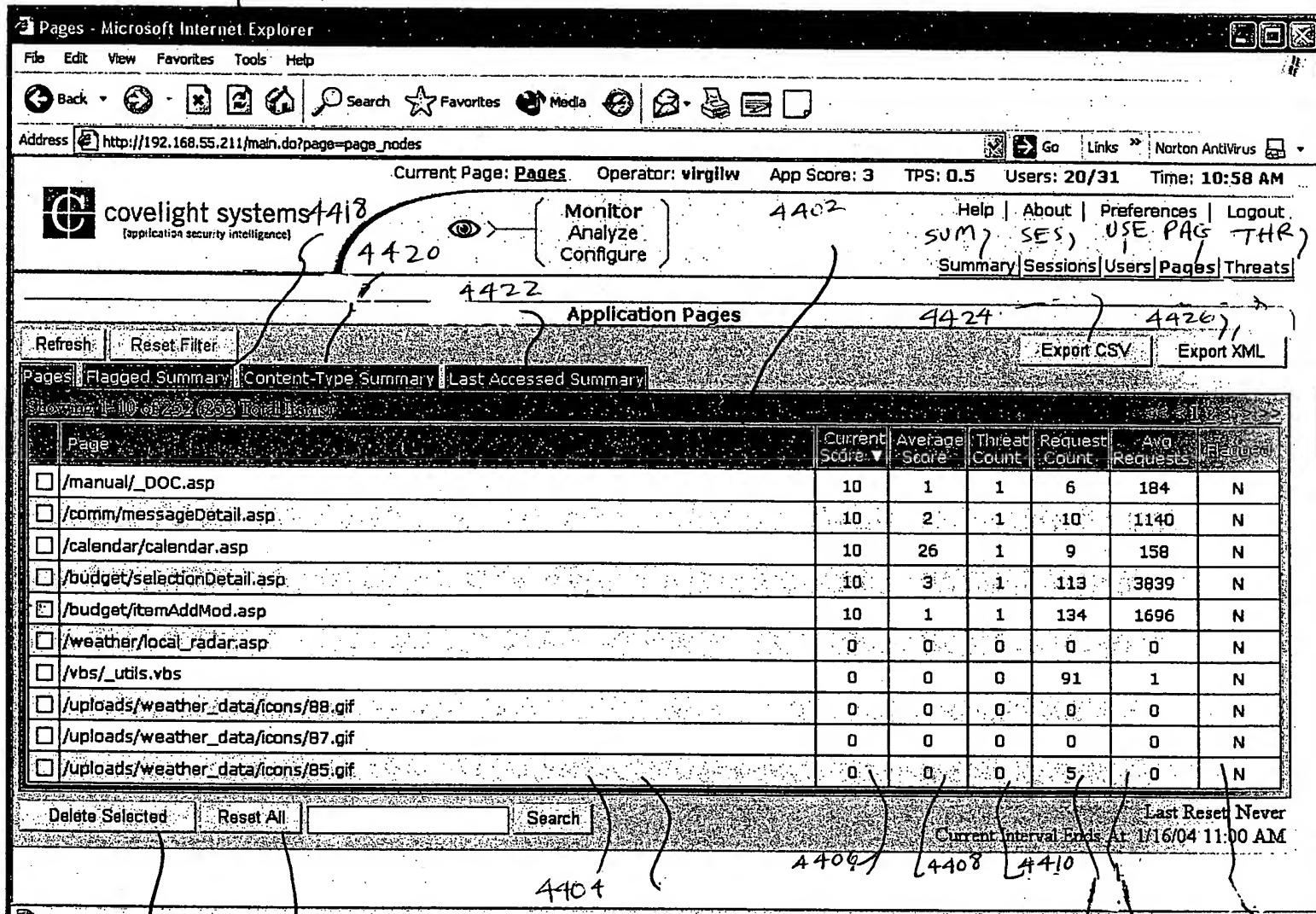
Done Internet

Title: METHODS, SYSTEMS AND COMPUTER PROGRAM PRODUCTS FOR MONITORING USER LOGIN ACTIVITY FOR A SERVER APPLICATION
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FIG.

44

4400



4428 4430

4412 4414

4416

FIG.

45

4500

4500

1

Page Detail - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites Media Mail

Address: http://192.168.55.211/page_nodes.do?rowlink=%2Fmanual%2F_DOC.asp&tableIndex=0&tableId=page_nodes_table

Current Page: Pages / Page Detail Operator: virgilw App Score: 3 TPS: 1.2 Users: 20/31 Time: 11:05 AM

covelight systems [application security intelligence]

Monitor Analyze Configure

Help About Preferences Logout

SUM SES USE PAG THR

Summary Sessions Users Pages Threats

Page Detail

Page: /manual/_DOC.asp 1/252 Next>

Content-Type: text/html (Search)	Max Interval Score: 10
Total Score: 30	Interval Score: 0
Total Threat Count: 3	Interval Threat Count: 0
Total Request Count: 88	Interval Request Count: 0
Average Score: 1	Average Response Time: 0
Interval Count: 19	Previous Interval Score: 10
Last Accessed: 1/16/04 10:16 AM	

Flagged: Apply

Last Reset: Never Current Interval Ends At: 1/16/04 12:00 PM

4502 4504

Done Internet

F I G.

4600

46 A

1

Threats - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://192.168.55.211/main.do?page=page_events

Current Page: Threats Operator: virgilw App Score: 3 TPS: 0.5 Users: 20/31 Time: 10:58 AM

Help About Preferences Logout

Monitor Analyze Configure

4618 4620 4622 4624 4626 SUM SES USE PAGE THR

Summary Sessions Users Pages Threats

Refresh Reset Filter Threats Export CSV Export XML

Threats Detector Summary Page Summary Client Summary Server Summary Date Summary

Showing 1-15 of 104 (104 Total Items)

Timestamp	Score	Detector	Request URI	User	Flagged	Client
1/15/04 11:53 PM	20	Simultaneous login	/project/project.asp	rwarburton	N	216.187.239.60
1/15/04 11:45 PM	10	Login time does not match acceptable window	/auth/login.asp	rwarburton	N	65.140.140.189
1/15/04 11:45 PM	0	User login	/auth/login.asp	rwarburton	N	65.140.140.189
1/15/04 11:35 PM	10	Login time does not match acceptable window	/auth/login.asp	katied	N	216.187.239.60
1/15/04 11:35 PM	0	User login	/auth/login.asp	katied	N	216.187.239.60
1/15/04 11:33 PM	10	Login time does not match acceptable window	/auth/login.asp	btaylor	N	24.11.194.43
1/15/04 11:33 PM	0	User login	/auth/login.asp	btaylor	N	24.11.194.43
1/15/04 11:33 PM	10	Login time does not match acceptable window	/auth/login.asp	btaylor	N	24.11.194.43
1/15/04 11:33 PM	0	User login	/auth/login.asp	btaylor	N	24.11.194.43
1/15/04 11:31 PM	10	Web crawler	/robots.txt	?	N	195.101.94.101
1/15/04 11:23 PM	10	Login time does not match acceptable window	/auth/login.asp	lthrash	N	216.253.195.146
1/15/04 11:23 PM	0	User login	/auth/login.asp	lthrash	N	216.253.195.146
1/15/04 11:23 PM	10	Login time does not match acceptable window	/auth/login.asp	lthrash	N	216.253.195.146
1/15/04 11:23 PM	0	User login	/auth/login.asp	lthrash	N	216.253.195.146
1/15/04 11:22 PM	10	Login time does not match acceptable window	/auth/login.asp	josh	N	216.187.239.60

4604 4606 4608 4610 4612 4614 4616

4602

Internet

FIG. 46B

4632

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File Edit View Favorites Tools Help
Back

Address Go Links Motion Analysis

Current Page: Threats Operator: admin App Score: 0 TPS: 0 Users: 0/12772 Time: 2:37 AM
Help | About | Preferences | Logout
Dashboard | Sessions | Users | Pages | Threats

CCv1light systems

Search Web Blocked Options

Threats Refresh Threats Summary Servers Summary Threats Summary

Threat Type	Percentage	Count
Too many individual page errors in interval	57%	36067
Session expired without logout	14%	772
Application request rate too high	100%	2
Too many total page errors in interval	57%	2
Abnormal node error rate	14%	2
User login	0%	0

Export CSV | Export XML

http://192.168.55.171/page_events.do?mid-page_threats_cardmanager-card=detector_tab

Internet

FIG. 46 C

4634

Title: METHODS, SYSTEMS AND COMPUTER PROGRAM PRODUCTS FOR MONITORING USER LOGIN ACTIVITY FOR A SERVER APPLICATION
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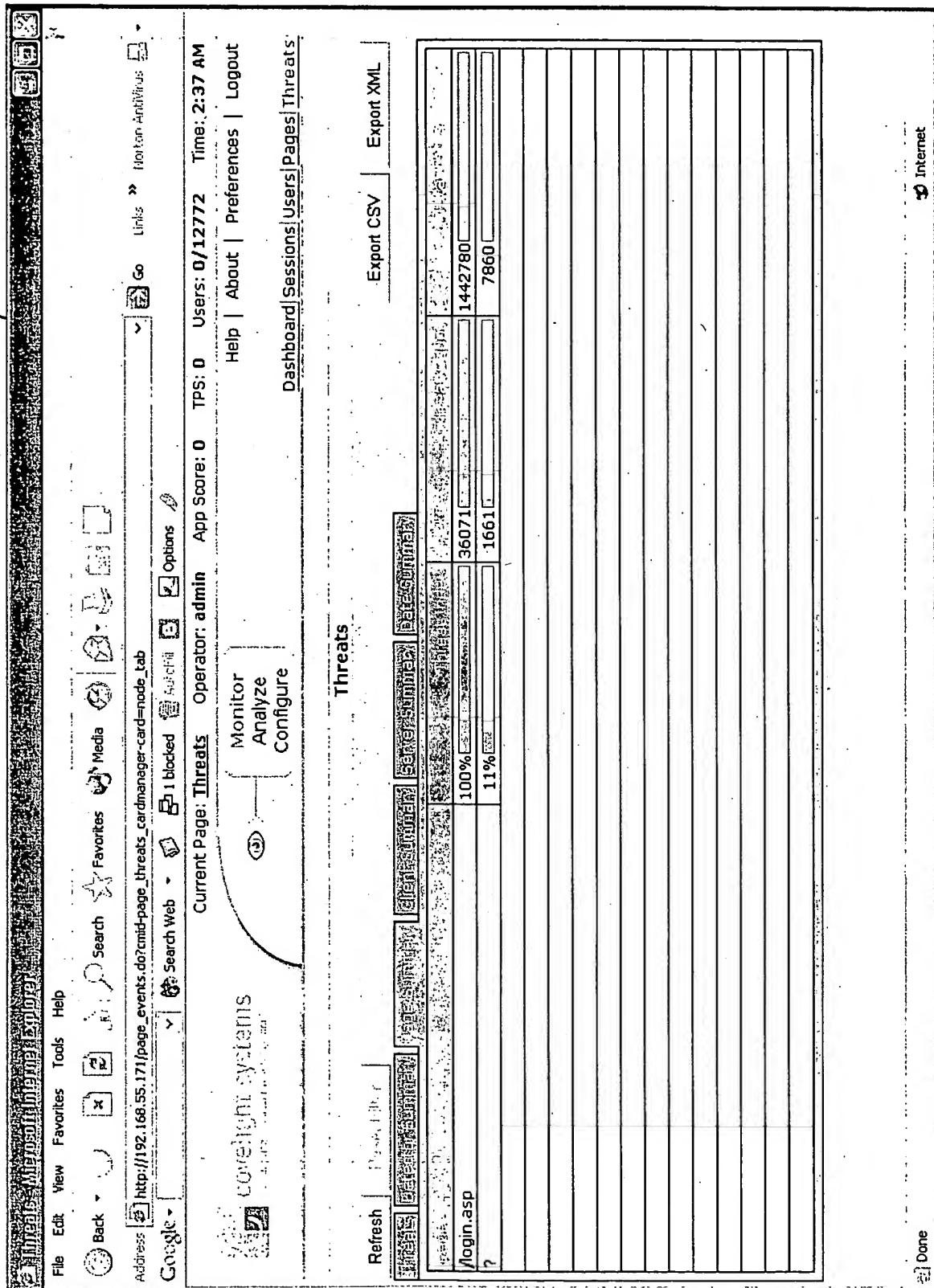


FIG. 46 D.

4636

Title: METHODS, SYSTEMS AND COMPUTER PROGRAM PRODUCTS FOR MONITORING USER LOGIN ACTIVITY FOR A SERVER APPLICATION

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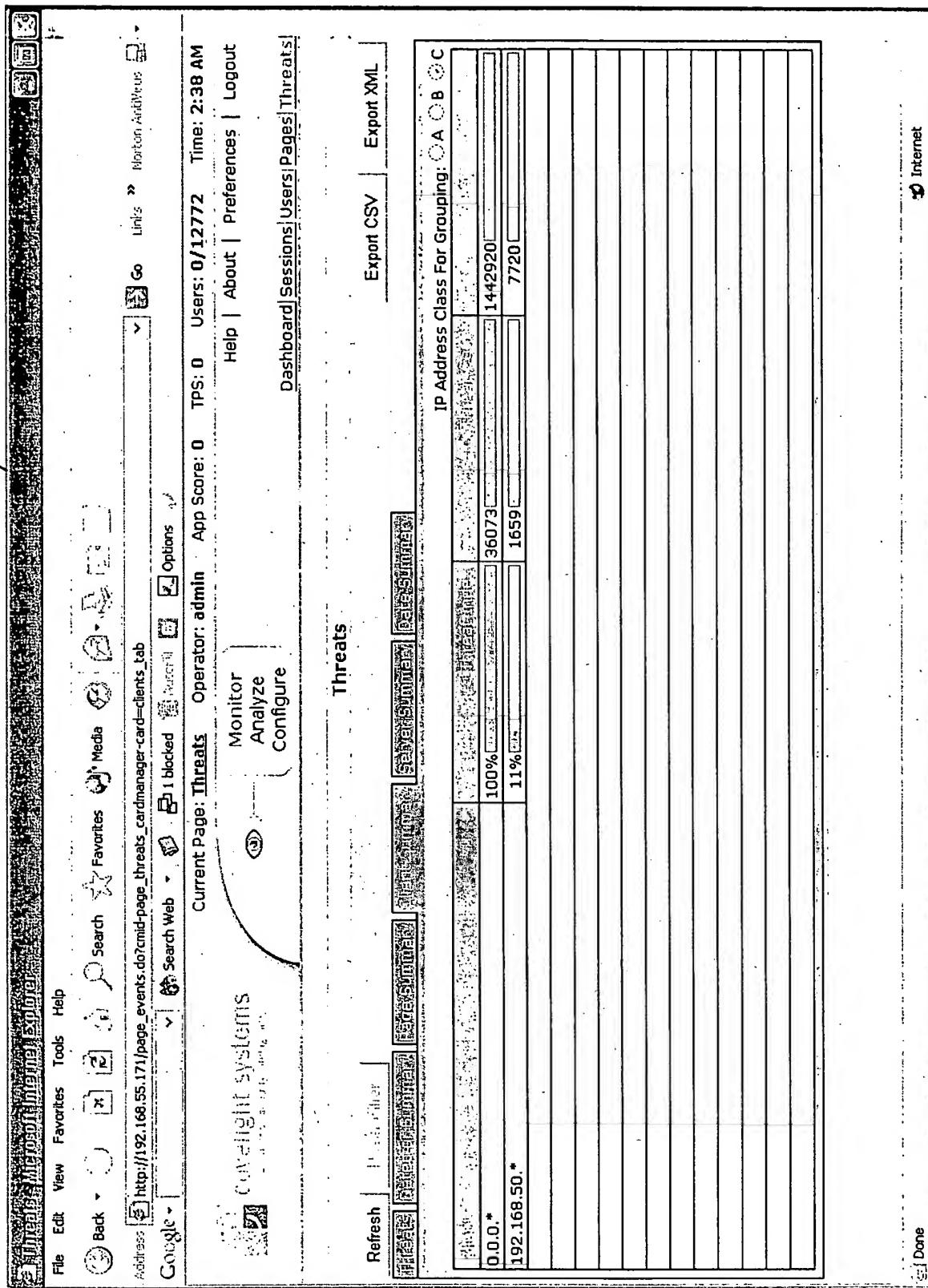


FIG. 46 E

4638

Title: METHODS, SYSTEMS AND COMPUTER PROGRAM PRODUCTS FOR MONITORING USER LOGIN ACTIVITY FOR A SERVER APPLICATION
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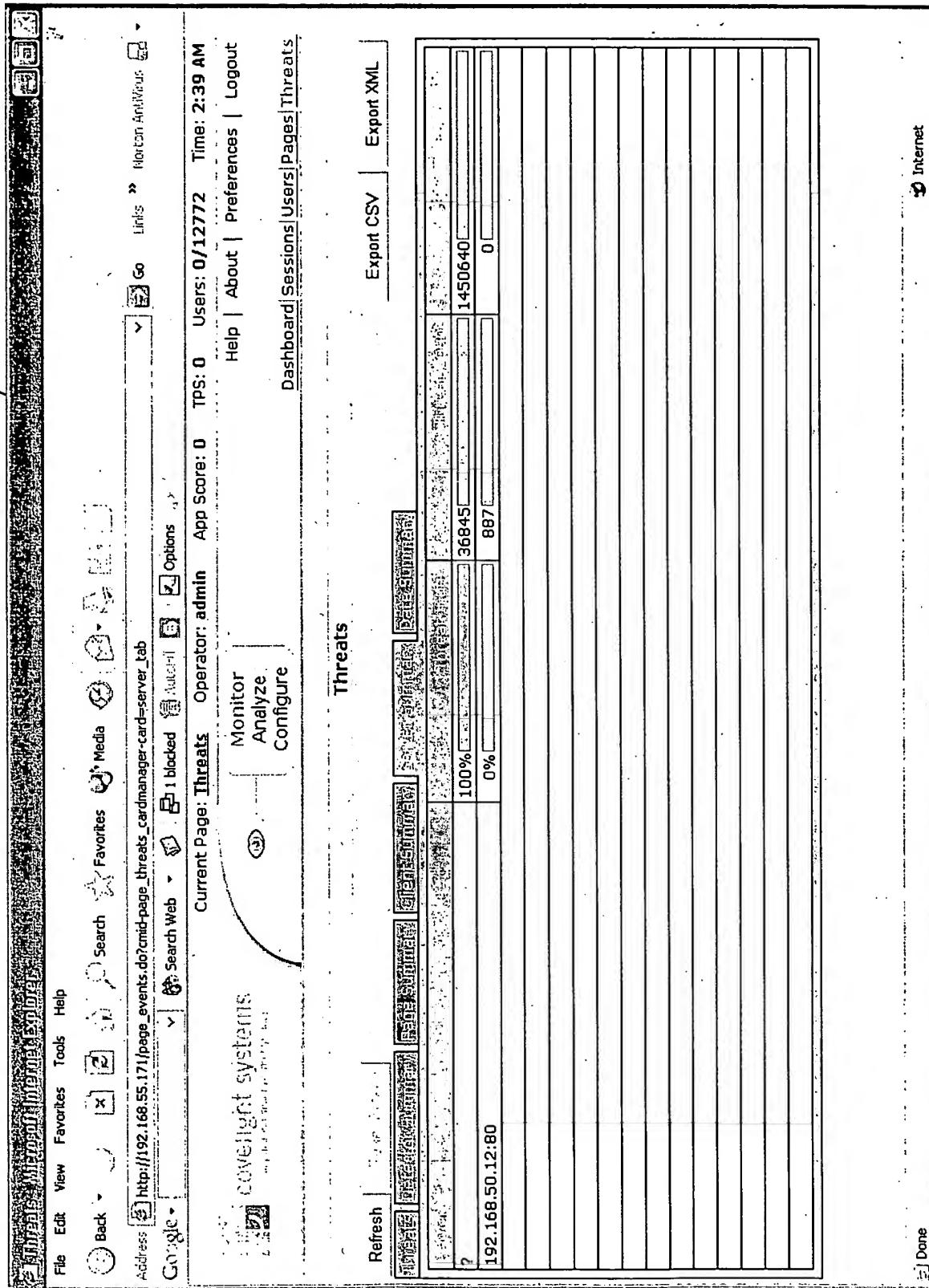
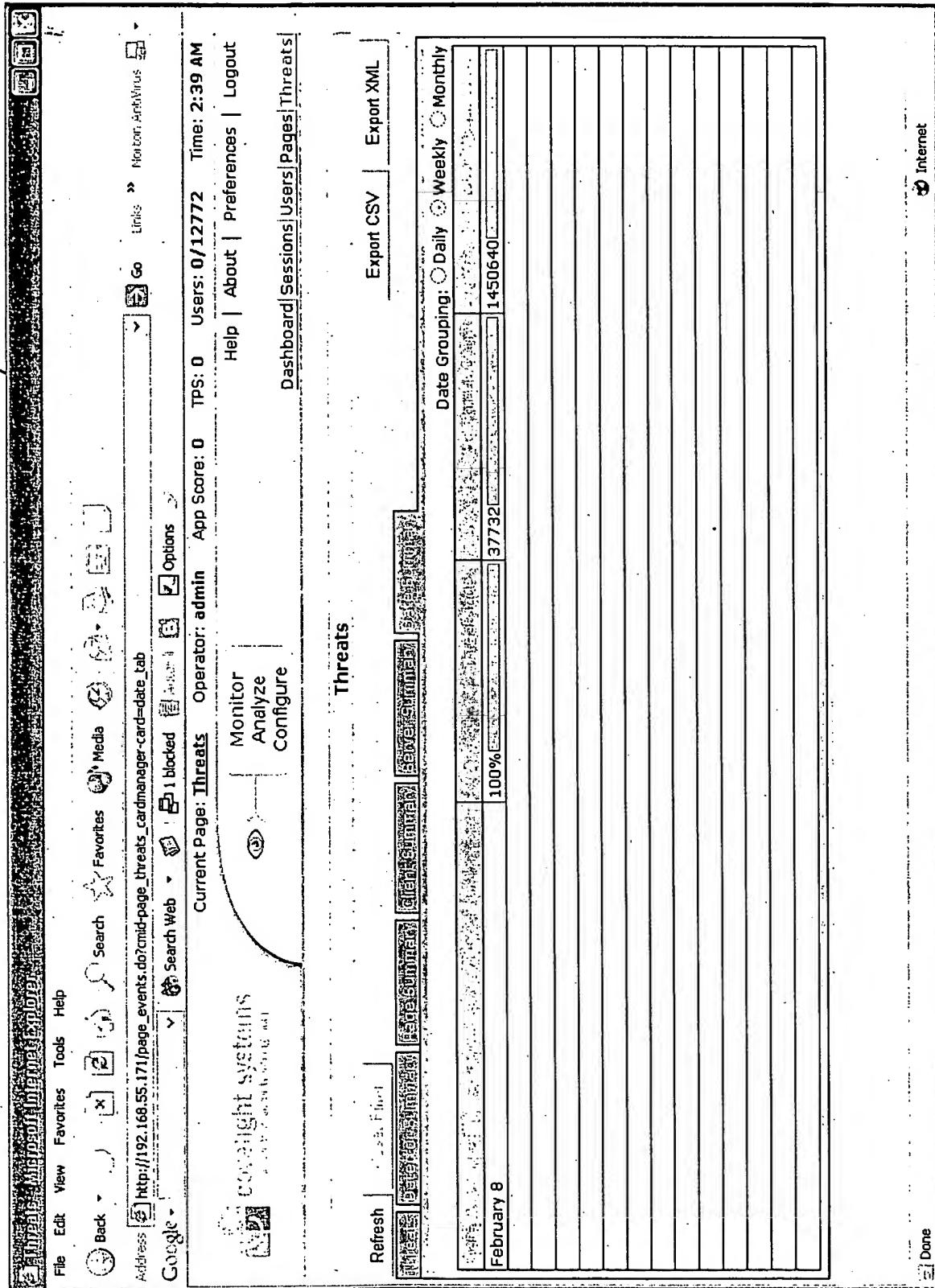


FIG. 46F 4640

Title: METHODS, SYSTEMS AND COMPUTER PROGRAM PRODUCTS FOR MONITORING USER LOGIN ACTIVITY FOR A SERVER APPLICATION

Atty Docket: 1503/7



F I G.

4700 47

1

Threat Detail - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: http://192.168.55.211/page_events.do?rowlink=1074228788614103&tableIndex=0&tableId=page_threats_table

Current Page: Threats / Event Detail Operator: virgilw App Score: 3 TPS: 0.4 Users: 20/31 Time: 11:06 AM

covelight systems (application security intelligence)

Monitor Analyze Configure

Help | About | Preferences | Logout

SUM SES USE PAG THR

Summary Sessions Users Pages Threats

Threat Detail:

1/104 Next>

Timestamp: 1/15/04 11:53 PM

Threat score: 20

Detector: Simultaneous login (Search)

Description: User is logged in twice on different sessions

Request URI: /project/project.asp (Search)

User: rwarburton (Search)

Flagged:

Session ID: LDAKLCADCGLHMKMICHIJKHPLO (Search)

Client IP address: 216.187.239.60 (Search)

Server IP address: 192.168.2.19:80 (Search)

Internet

FIG. 48

4800

1

4800

4822 4824 4826 4828 4830 4832 4834 4836 4838 4839

Transactions - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://192.168.55.211/main.do?page=page_bns

Current Page: Transactions Operator: virgilw App Score: 3 TPS: 0.2 Users: 20/31 Time: 11:00 AM

covelight systems (application security intelligence)

Monitor MI Help About Preferences Logout
 Analyze AI 4836
 Configure CI 4830 4832 Transactions Network

Transactions

Refresh Reset Filter Export CSV Export XML

Transactions Method Summary Client Summary Page Summary Status Summary Content-Type Summary Server Summary Date Summary

Showing 1-15 of 1000 (20023 Total Items)

Method	URI	User	Status	Content Length	Content Type	Threat Score	Timestamp	Response Time
GET	/	?	302	135	text/html	0	1/16/04 11:00 AM	6
GET	/images/addloc.gif	?	200	1664	image/gif	0	1/16/04 11:00 AM	2
GET	/images/additem.gif	?	200	1529	image/gif	0	1/16/04 11:00 AM	0
GET	/images/selectsum.gif	?	200	2079	image/gif	0	1/16/04 11:00 AM	0
GET	/images/lt_tabnotch.gif	?	200	49	image/gif	0	1/16/04 11:00 AM	0
GET	/images/lt_tabnotch.gif	?	200	48	image/gif	0	1/16/04 11:00 AM	0
GET	/images/s.gif	?	200	43	image/gif	0	1/16/04 11:00 AM	0
GET	/js/menus.js	?	200	897	application/x-javascript	0	1/16/04 11:00 AM	0
GET	/vbs/_utils.vbs	?	200	956	text/vbscript	0	1/16/04 11:00 AM	0
GET	/js/modal.js	?	200	481	application/x-javascript	0	1/16/04 11:00 AM	0
GET	/js/util.js	?	200	5608	application/x-javascript	0	1/16/04 11:00 AM	3
GET	/js/_const.js	?	200	200	application/x-javascript	0	1/16/04 11:00 AM	0
GET	/include/builder_styles/_stylemain.css	?	200	12924	text/css	0	1/16/04 11:00 AM	0
GET	/budget/itemaddmod.asp	jan	200	5488	text/html	0	1/16/04 11:00 AM	199
GET	/budget/selectionDetail.asp	jan	200	10454	text/html	0	1/16/04 11:00 AM	2026

4804

4802

4806

4808

4810

4812

4814 4816

4818

4820

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FIG. 49

4900

Transaction Detail - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: http://192.168.55.211/page_txns.do?rowlink=107426881090038488&tableIndex=1&tableId=page_txns_table

Current Page: Transactions / Transaction Detail Operator: virgilw App Score: 3 TPS: 0.1 Users: 20/31 Time: 11:07 AM

Back Forward Stop Refresh Search Favorites Media Stop Print Mail Help About Preferences Logout

Transactions Network

covelight systems (application security intelligence)

Monitor Analyze Configure

Transaction Detail

Transaction: 107426881090038488 <Previous 19/1000 Next>

Timestamp:	1/16/04 11:00 AM	HTTP response:	302 (Search)
Method:	POST (Search)	Content Length:	175
URI:	/budget/ItemAddM od.asp (Search)	Content Type:	text/html (Search)
User:	1 (Search)	Server Response Time:	2.8 s
Client IP Address:	66.180.103.154 (Search)	Server IP Address:	192.168.2.19:80 (Search)
Session ID:	7 (Search)	Parameters	
Name	Value		
lnAttachmentsCount	0		
chkInventory	0		
lngeventId			
txtItemDesc	co:#3		
blnNewItem	False		
DeleteOneAttachment			
actionType	Save		
strWeblink			
lngeLocationId	650189281		
lngeOldProjectId	560003098		
olditemId			
itemID	501077459		
txtItemInfo			
lngeSelectionId	600062400		

Done Internet

FIG.

50

5000

Network Stats - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Favorites Media

Address: <http://192.168.55.211/main.do?nav=analysts> Go Links Norton AntiVirus

Current Page: **Stats** Operator: virgilw App Score: 3 TPS: 1.3 Users: 20/31 Time: 11:00 AM

covelight systems (application security intelligence) Monitor Analyze Configure Help About Preferences Logout Transactions Network

System Uptime: 0 days 18 hours 47 minutes 2 seconds

Packets

- IP Packets Seen/Created: 270,215
- Packet Capture Count: 2,921,154
- TCP/IP Protocol Count: 1,110
- Unprocessed Counts: 1,004,433 Mb
- Bytes/Ports/2 Sims: 1,232,241 Mb

Connections

- Connection Open Count: 1,016
- Connection Close Count: 1,016
- Total P2P Transactions: 0

SSL

- Max SSL Session Cache Size: 100
- Resumed SSL Session Count: 0
- SSL Connection Count: 0
- SSL Session Cache Size: 100

Internal Operations

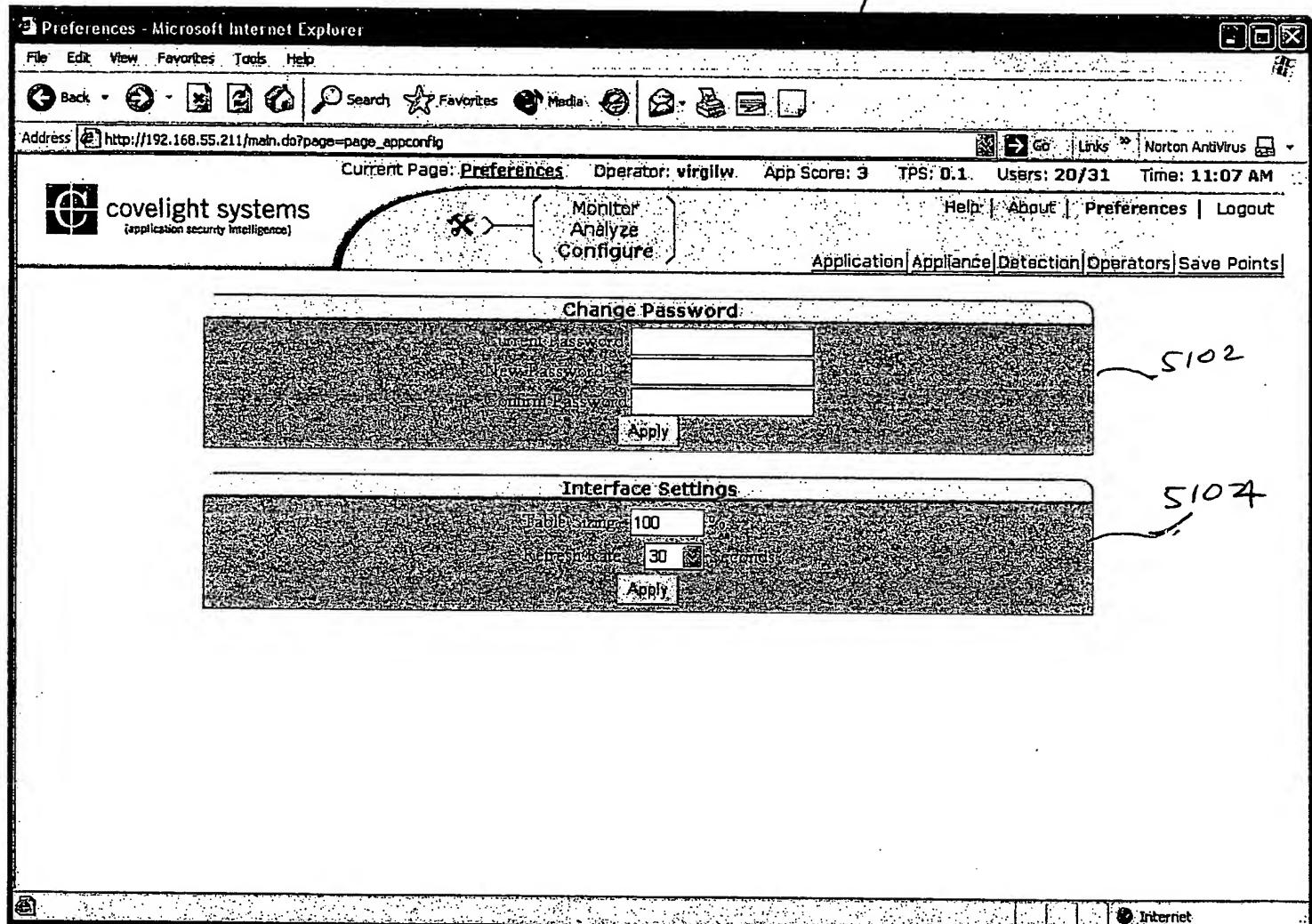
- Decompress Buffer Size: 100
- Decompress Buffer High Mark: 100
- Capture Omega Count: 0

Server	Port	Connection Count	SSL Status	HTTP Transactions	Percentage of HTTP Transactions
192.168.2.19	80	4	N/A	28996	100%

Internet

FIG. 51

5100

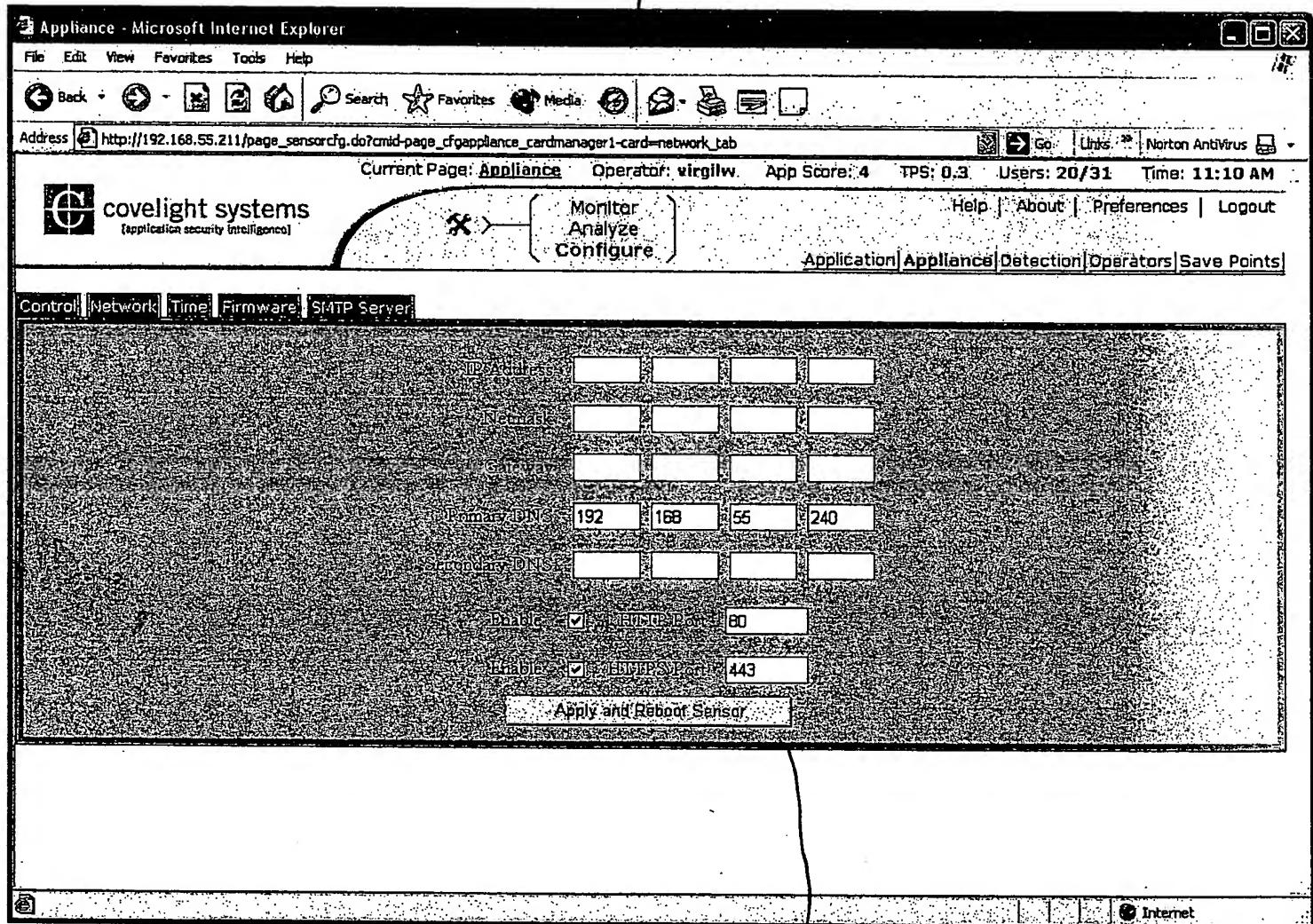


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FIG. 52

520°

1



520²

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FIG. 53

5300

Appliance - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: http://192.168.55.211/page_sensorcfg.do?cmid=page_cfgappliance_cardmanager1<card=smtpserversettings_tab Go Links Norton AntiVirus

Current Page: Appliance Operator: virgilw App Score: 4 TPS: 1.7 Users: 23/31 Time: 11:28 AM

covelight systems (application security intelligence)

Monitor Analyze Configure

Help About Preferences Logout

Application Appliance Detection Operators Save Points

Control Network Time Firmware SMTP Server

SMTP Server: mail.invalid.com

Port: 25

From Address: anonymous@invalid.com

From Name: Covelight Sensor

Enabled:

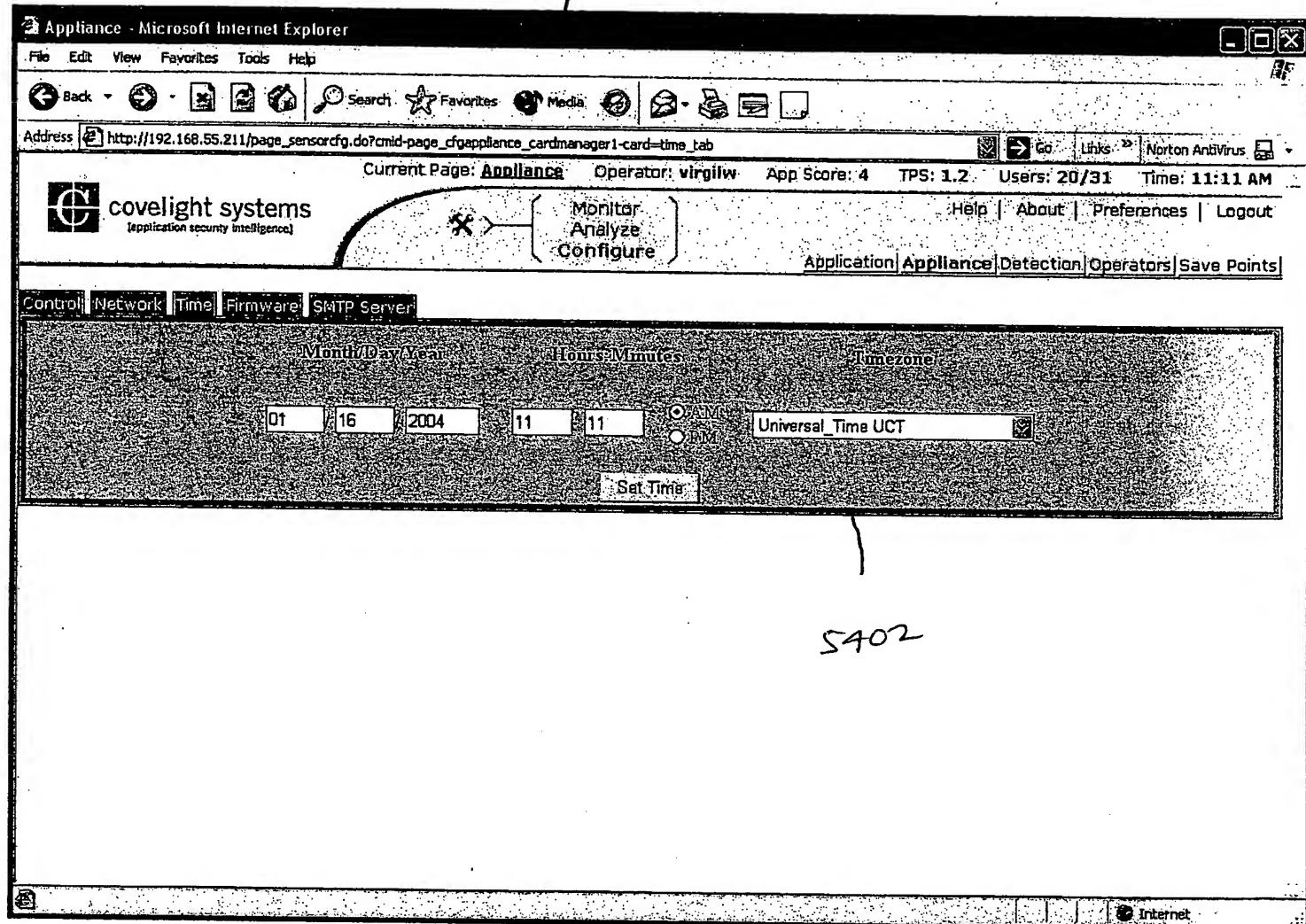
Apply

Internet

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FIG. 54

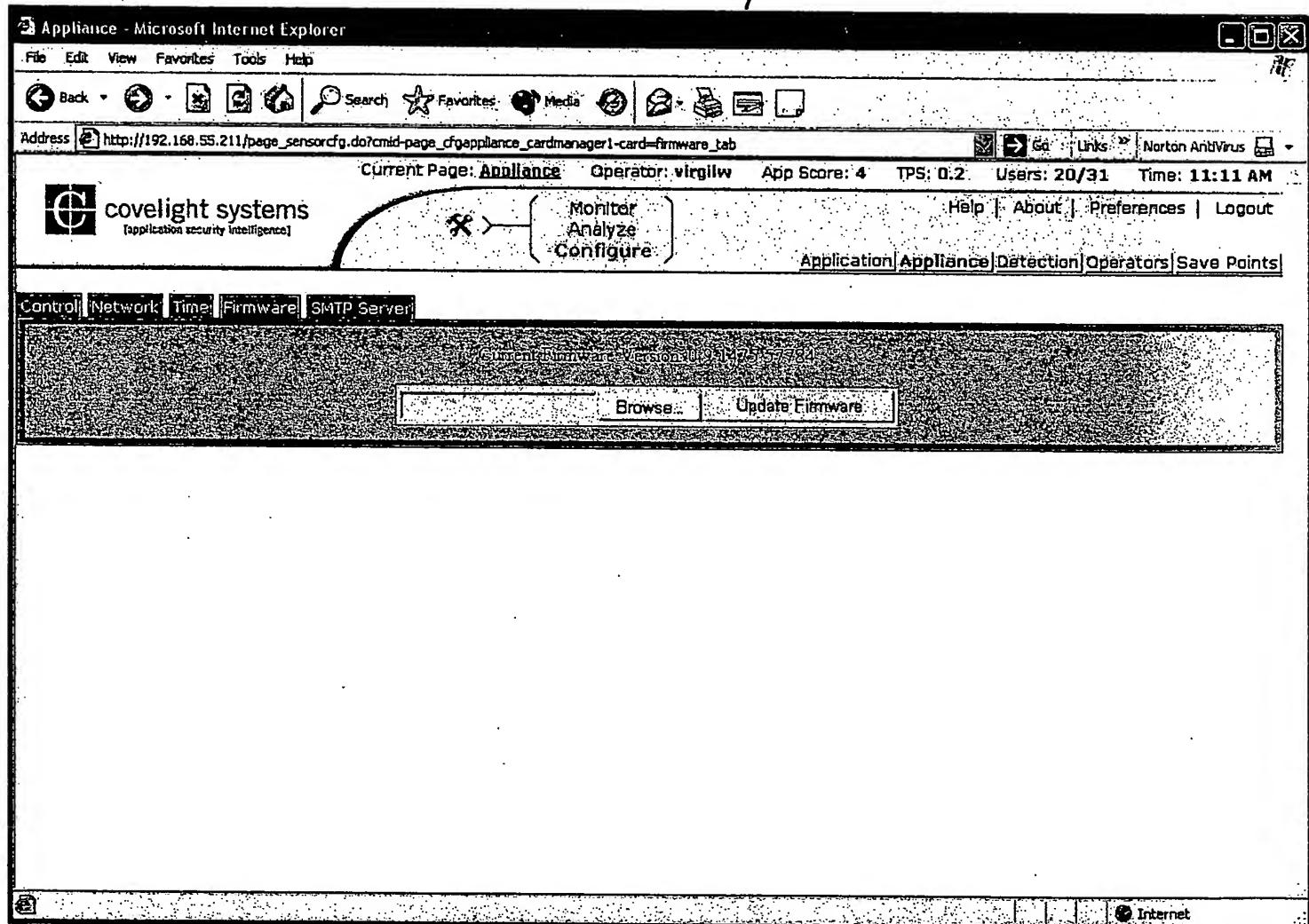
5400



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FIG. 55

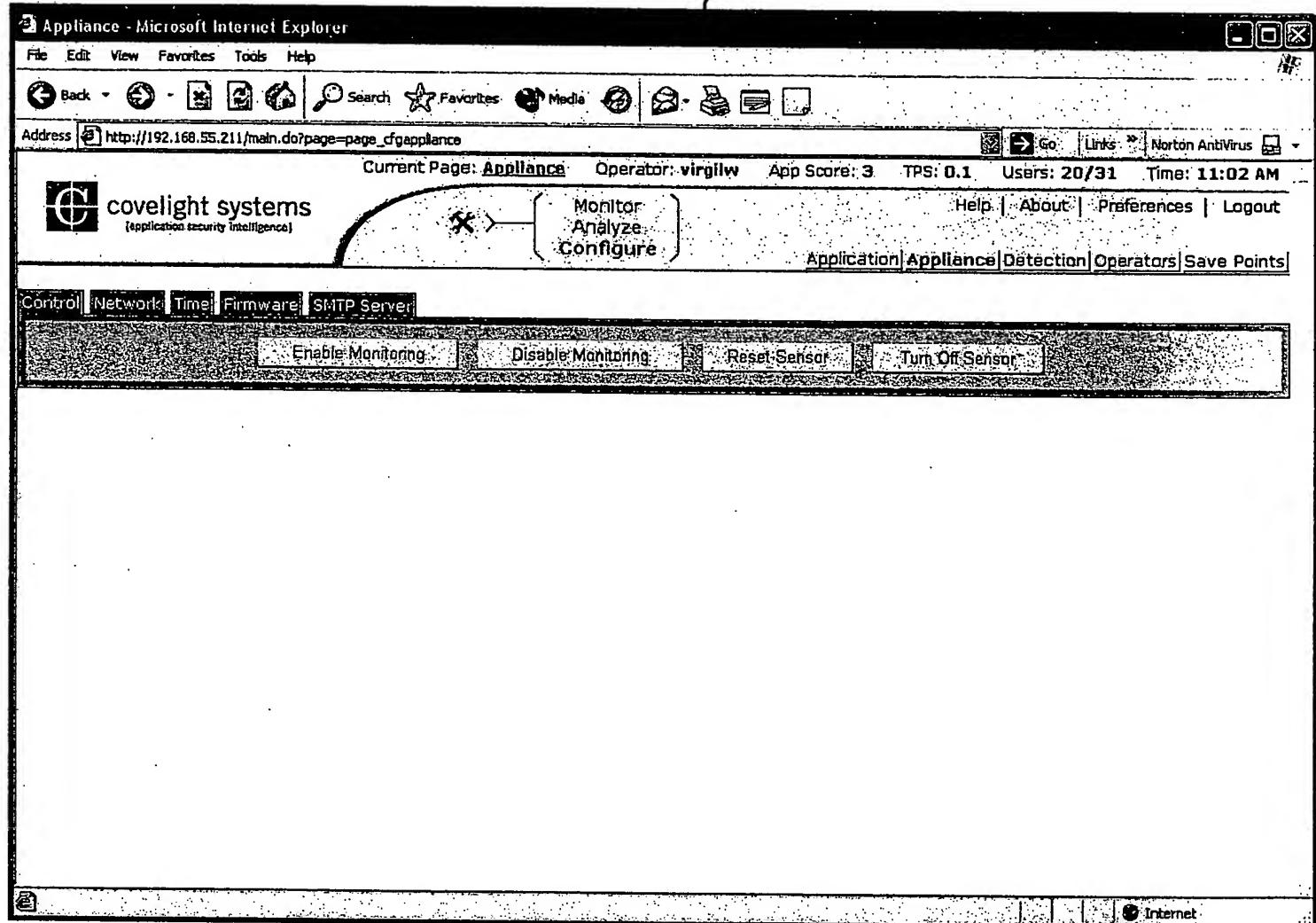
5500



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FIG. 56

5600



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FIG. 57

5700

Application - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Favorites

Address http://192.168.55.211/page_monappconfig.do?cmid=page_cfgapplication_cardmanager!-card-filters_tab Go Links Norton AntiVirus

Current Page: Application Operator: virgilw App Score: 3 TPS: 0.8 Users: 20/31 Time: 11:08 AM

covelight systems (application security intelligence) Monitor Analyze Configure Help About Preferences Logout

Application Appliance Detection Operators Save Points

Servers | Filters | Page Recognition | Sessions | Logins

Hosts | Included URLs | Excluded URLs

5702 5704 5706

Internet

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FIG. 58

5800

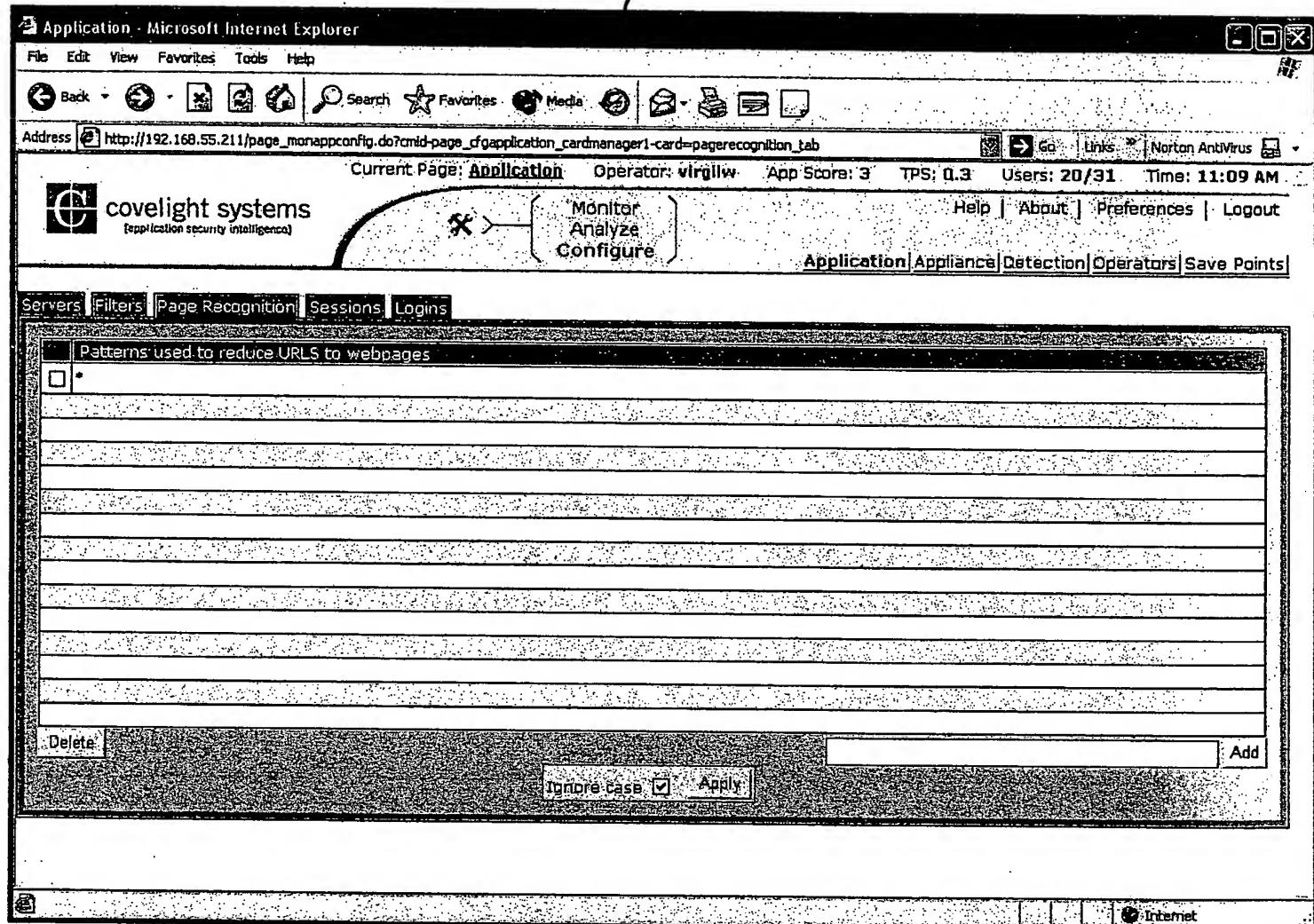


FIG. 59

5900

Application - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: http://192.168.55.211/page_sessiondetectioncfg.do?cmid=page_ofapplication_cardmanager1-card=sessions_tab

Current Page: Application Operator: virgilw App Score: 3 TPS: 0.2 Users: 20/31 Time: 11:09 AM

covelight systems (application security intelligence)

Monitor Analyze Configure

Help | About | Preferences | Logout

Application Appliance Detection Operators Save Points

57002

Servers | Filters | Page Recognition | Sessions | Logins

Session Management:

Standard (HTTP) sessions
 Standard (PHP) sessions
 Standard (ASP) sessions
 Custom sessions

Application Server Features:

Permissive sessions SESSIONTIMEOUTINMINUTES: 125
 Strict sessions Session ID in URL

Custom Settings:

Session ID embedded in URL
Session ID name: ASPSESSIONID
 Session ID name is application specific
Session ID name is application specific

Session ID may be encoded as a query argument
Name of query argument: _SESSIONID

Session ID may be encoded as a path parameter in URL
Name of path parameter: _SESSIONID

Internet

FIG. 60

6000

Application - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: http://192.168.55.211/page_loginDetectioncfg.do?cmd=page_cfgapplication_cardmanager1-card=login_tab

Current Page: Application Operator: virgilw App Score: 3 TPS: 0.2 Users: 20/31 Time: 11:10 AM

covelight systems (application security intelligence)

Monitor Analyze Configure

Help | About | Preferences | Logout

Application | Appliance | Detection | Operators | Save Points

Σ 6002

Servers | Filters | Page Recognition | Sessions | Logins

Form Based Login Detection

Form based login detection

User based login detection

URL pattern of login action: /auth/login.asp?txtUsername=&actionType=login

Form field containing user ID: txtUsername

Logout pattern

URL pattern of logout action:

Form Based Login Result

Failed login form is sent to the following URL

Failed login response is sent to the following URL

Failed test cause HTML response contains the following text

Success login response is redirected to the following URL

Success login response HTML contains the following text

Success login application server creates a ASP session

Update

Internet

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FIG. 61

6100

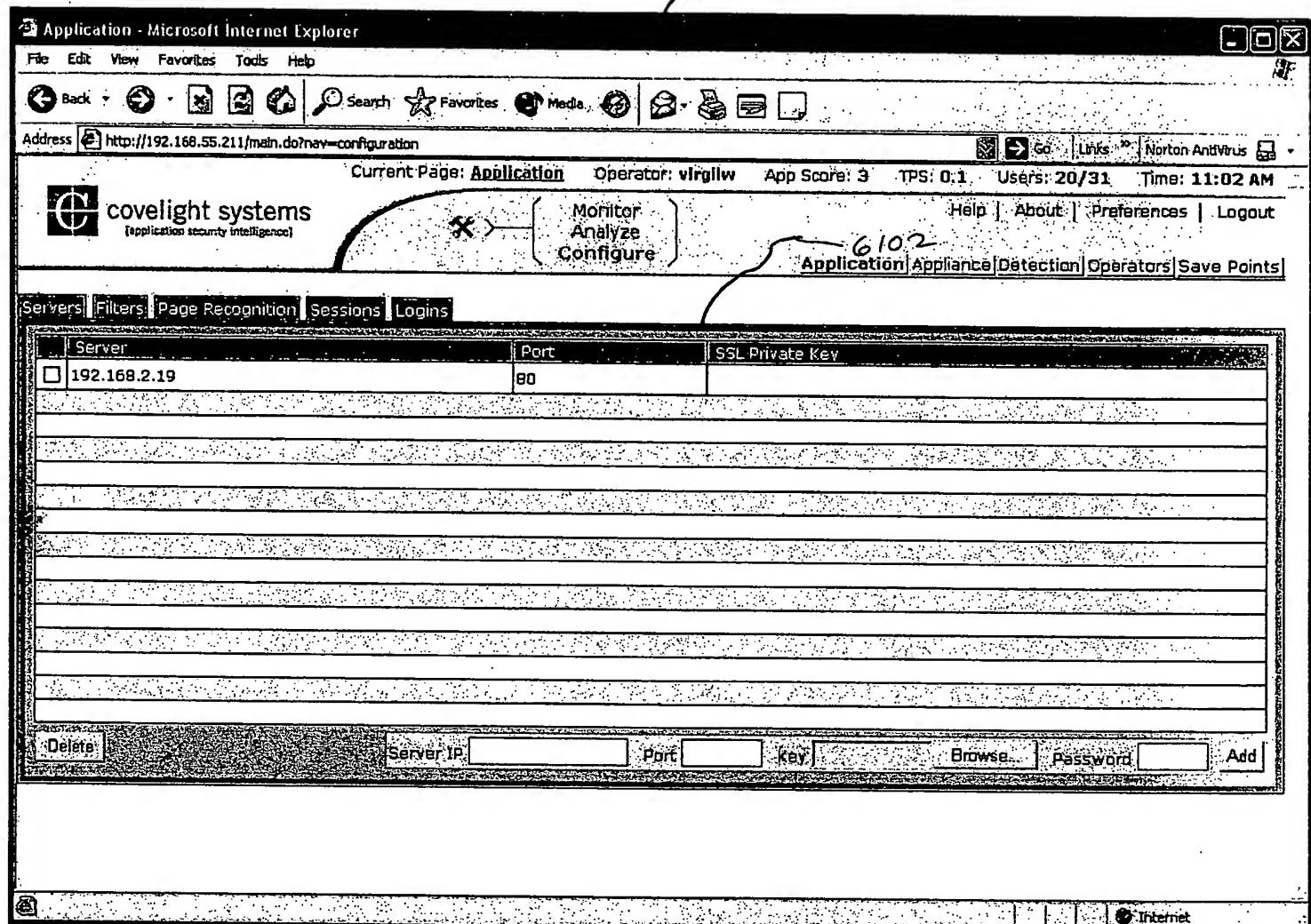


FIG. 62

Operators - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: http://192.168.55.211/main.do?page=page_cfgoperators

Current Page: Operators Operator: virgilw App Score: 3 TPS: 0.1 Users: 20/31 Time: 11:02 AM

Help | About | Preferences | Logout

covelight systems (application security intelligence)

Monitor Analyze Configure

Application Appliance Detection Operators Save Points

6204 6202 6206

Operator	Email Address
<input type="checkbox"/> jhargett	
<input type="checkbox"/> kgramley	
<input type="checkbox"/> dsinnott	
<input type="checkbox"/> mdurrnett	mdurrnett@ccovelight.com
<input type="checkbox"/> tash1	tash1@notarealsite.com
<input type="checkbox"/> aschmidt	
<input type="checkbox"/> tash	tash@notarealsite.com
<input type="checkbox"/> virgilw	
<input type="checkbox"/> mcarman	mcarman@covelight.com
<input type="checkbox"/> dlogan	
<input type="checkbox"/> admin	

6208 6212 6210

Internet

FIG. 63

6300

6300

1

Operator Detail - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: http://192.168.55.211/page_operatorscfg.do?rowlink=jhargett&tableIndex=0&tableId=page_operatorscfg.table1

Current Page: Operators Operator: virgilw App Score: 4 TPS: 3.3 Users: 23/31 Time: 11:33 AM

Norton AntiVirus

covelight systems (application security intelligence)

Monitor Analyze Configure

Help | About | Preferences | Logout

Application | Appliance | Detection | Operators | Save Points

Operator Detail

Operator Name: virgilw

Operator Password:

Re-Enter Operator Password:

Operator Options:

Auto Administration

Auto User Maintenance

Auto Application Viewing

Update Cancel

6302

6304

6306

6308

6310

6312

Done Internet

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FIG. 64

6400

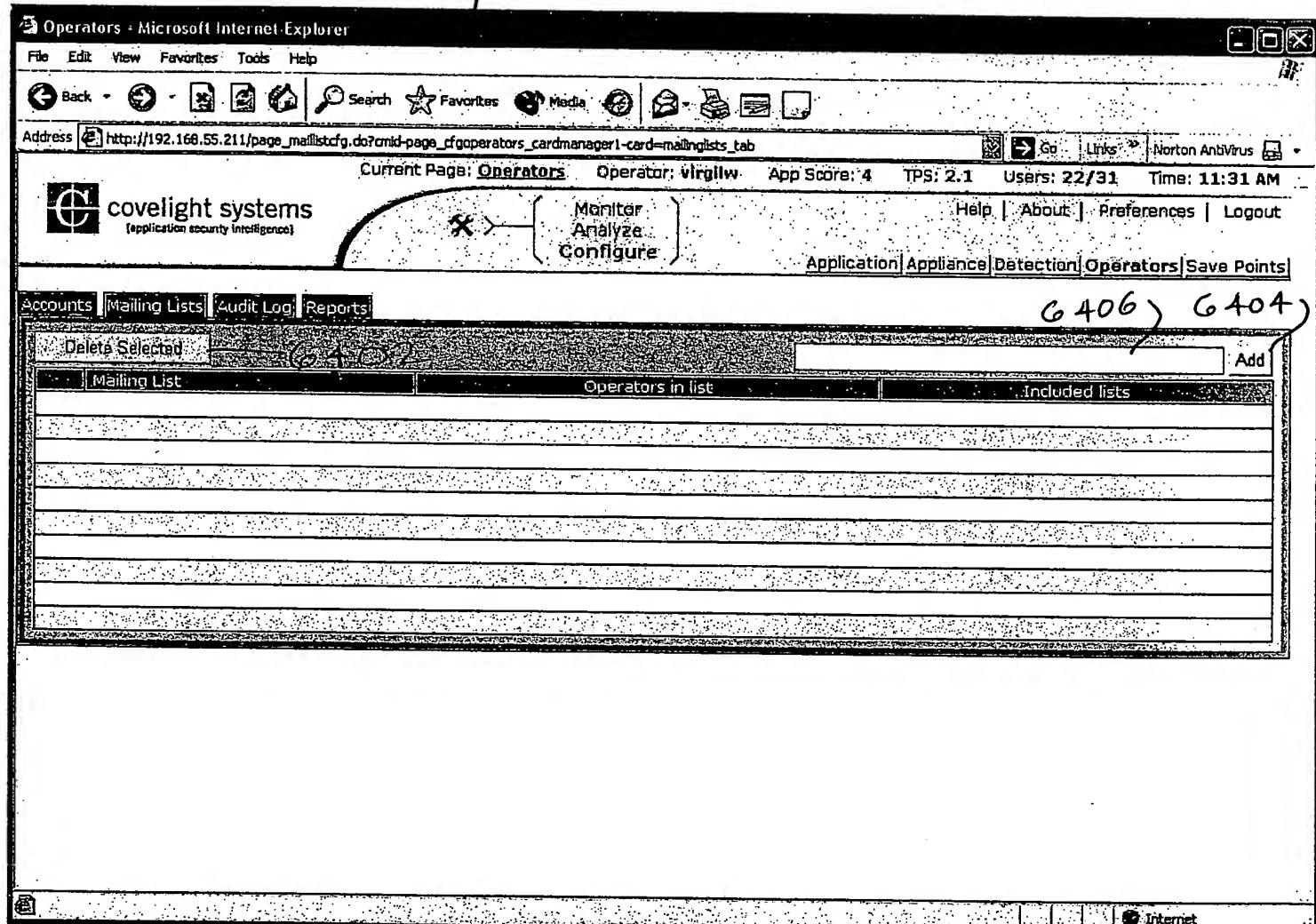


FIG. 65

6500

6512 6514

Operators - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://192.168.55.211/page_operatorscfg.do?cmd=page_cfgoperators_cardmanager1-card=auditlog_tab

Current Page: Operators Operator: virgilw App Score: 4 TPS: 2.9 Users: 22/31 Time: 11:32 AM

Help | About | Preferences | Logout

covelight systems (application security intelligence)

Monitor Analyze Configure

Application Appliance Detection Operators Save Points

Accounts Mailing Lists Audit Log Reports

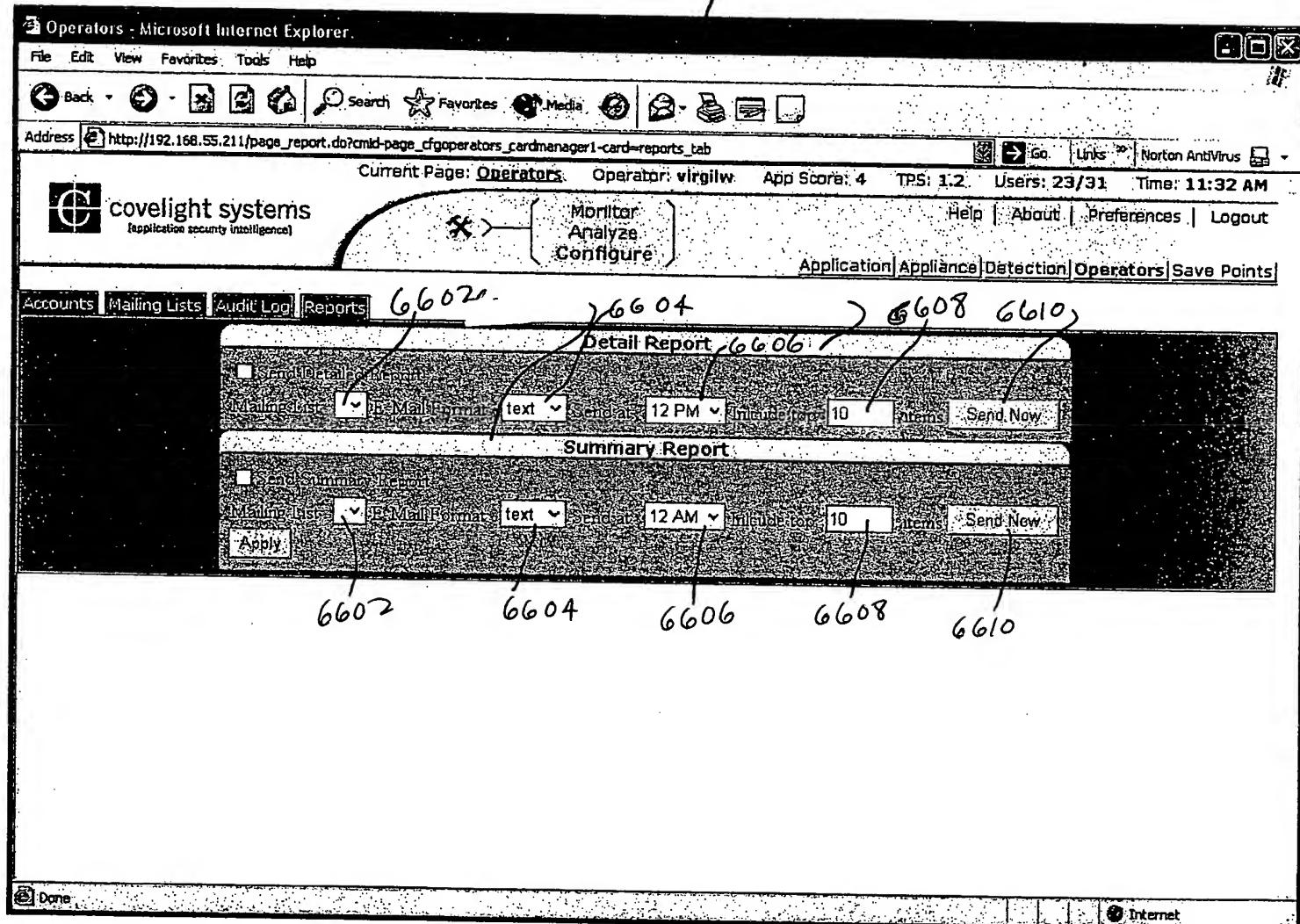
Refresh Export CSV Export XML

Date	Message	IP Address	Operator
1/16/04 11:28 AM	Login successful	192.168.55.101	virgilw
1/16/04 10:57 AM	Login successful	192.168.55.101	virgilw
1/16/04 10:11 AM	Changed operator virgilw refresh rate to 30	192.168.55.17	virgilw
1/16/04 10:11 AM	Changed operator virgilw refresh rate to 30	192.168.55.17	virgilw
1/16/04 9:30 AM	Login successful	192.168.55.17	virgilw
1/16/04 9:27 AM	Login successful	65.81.86.237	dmdurrett
1/16/04 9:26 AM	Login successful	192.168.55.17	virgilw
1/16/04 8:47 AM	Login successful	65.81.86.237	dmdurrett
1/16/04 8:47 AM	Logout successful	65.81.86.237	dmdurrett
1/16/04 8:17 AM	Login successful	65.81.86.237	dmdurrett
1/16/04 7:37 AM	Login successful	65.81.86.237	dmdurrett
1/15/04 7:34 PM	Login successful	192.168.55.101	virgilw
1/15/04 7:34 PM	Login denied for admin	192.168.55.101	?
1/15/04 7:14 PM	Login successful	192.168.55.101	virgilw
1/15/04 6:34 PM	Login successful	192.168.55.10	dmdurrett
1/15/04 6:04 PM	Login successful	69.132.50.166	jhargett
1/15/04 5:46 PM	Login successful	65.81.86.237	admin
1/15/04 5:24 PM	Login successful	192.168.55.10	dmdurrett

Internet

FIG. 66

6600



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PROGRAM PRODUCTS FOR
MONITORING USER LOGIN ACTIVITY
FOR A SERVER APPLICATION
Atty Docket: 1503/7

FIG. 67

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1

Detection - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: http://192.168.55.211/mah.do?page=page_cfgdetection

Current Page: Detection Operator: virgilw App Score: 3 TPS: 0.1 Users: 20/31 Time: 11:02 AM

covelight systems [application security intelligence]

Monitor Analyze Configure

Help About Preferences Logout

Application Appliance Detection Operators Save Points

Detectors Global Scoring Adjustment Access Lists

Show 1-15 of 42

Name	Category	Score	Status
Abnormal node error rate	Application Errors	10	Working
Abnormal session duration	Application Misuse	10	Learning
Abnormal user session duration	Application Misuse	10	Working
Application request rate too high	Usage Policy	70	Working
Consecutive login failures	Authentication	30	Working
Disallowed IP address	Access Policy	10	Disabled
Encoded 8-bit character	URL Encoding	5	Working
Excessive individual HTTP errors	HTTP Protocol	40	Working
Excessive login failures	Authentication	10	Learning
Excessive total HTTP errors	HTTP Protocol	40	Working
Flagged user login	Access Policy	50	Working
HTTP buffer overflow	HTTP Protocol	80	Working
HTTP parsing error	HTTP Protocol	80	Working
Invalid % character	URL Encoding	50	Working
Invalid HTTP request	HTTP Protocol	80	Working
Invalid URL encoding	URL Encoding	80	Working
Invalid UTF-8 sequence	URL Encoding	20	Working
Invalid use of %	URL Encoding	50	Working

6702

6704

6706 6708

Internet

FIG. 68

6800

6802

6804

6806

6808

6810

6812

Detector Detail - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: http://192.168.55.211/page_detectors.do?rowLink=rate1&SC1&tableIndex=3&tableId=page_detectors_detectorTable

Current Page: Detection / Detector Detail Operator: virgilw App Score: 4 TPS: 0.4 Users: 23/31 Time: 11:37 AM

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Application Appliance Detection Operators Save Points

Detector Detail

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Rate

Description: Detects when the overall rate of HTTP requests to the application is too high. The sensor takes samples of the transaction-per-second (TPS) throughput of the monitored application. When the value is higher than expected, it might suggest that an attack is progress or that

Enabled:

Event: Application throughput (TPS) is too high

Impact Score: 70

E-mail Alerts

Send E-mail Alerts: (The distribution lists are defined in the detector policy)

Event Count: 1

Event Duration: 1000

Detector Tuning

Apply

Done Internet

6800

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Atty Docket: 1503/7

FIG. 69

6900

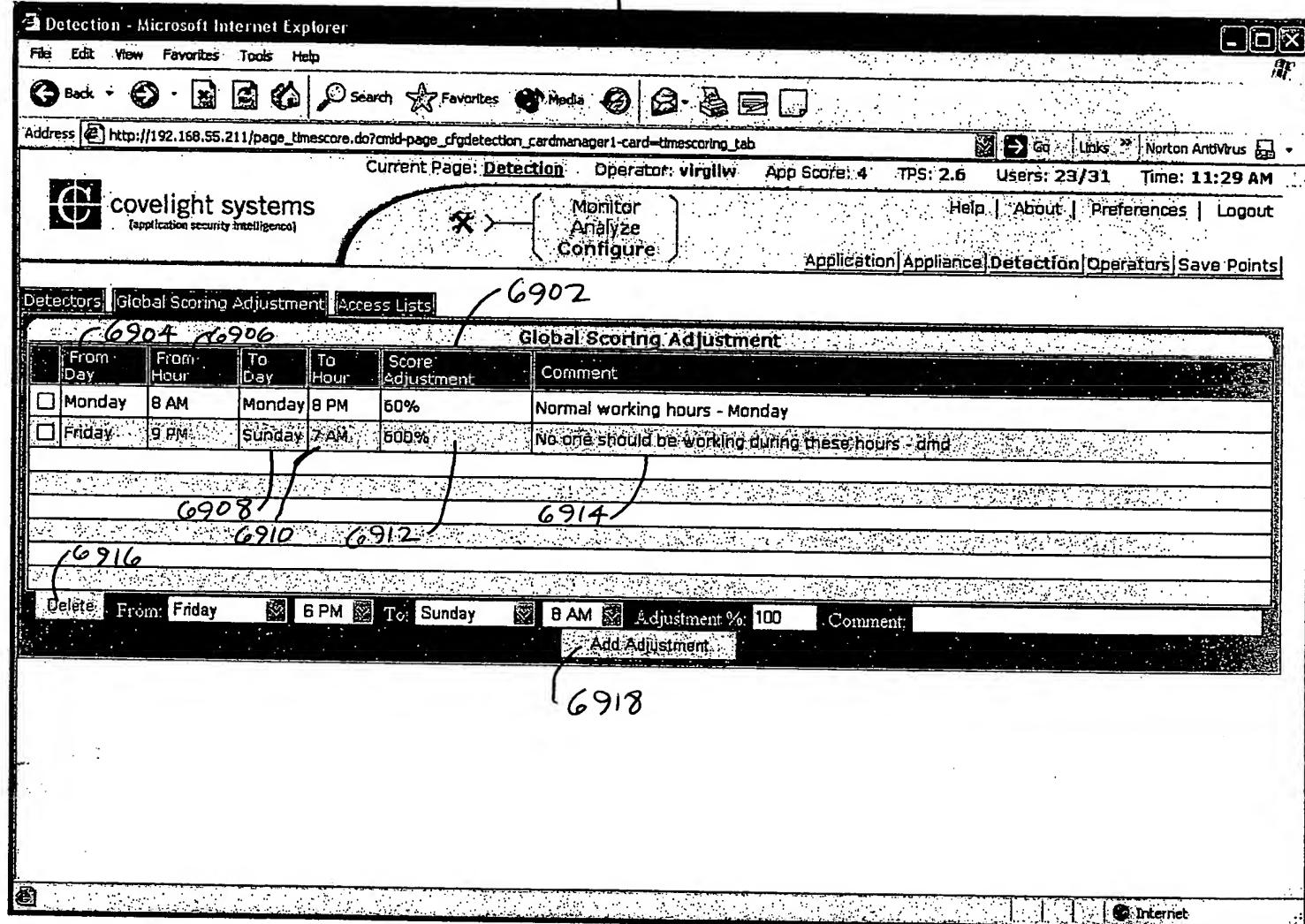


FIG. 70

7000

7000

Detection - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: http://192.168.55.211/page_uals.do?cmd=page_cfgdetection_cardmanager1-card-accesslists_tab

Current Page: Detection Operator: virgilw App Score: 4 TPS: 1.8 Users: 22/31 Time: 11:31 AM

covelight systems (application security intelligence)

Monitor Analyze Configure

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Application | Appliance | Detection | Operators | Save Points

Detectors | Global Scoring Adjustment | Access Lists

Name	Comment
test	

7002 7004

7006 7008

Internet

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FIG. 71

